

9/124280

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=> e porro massimo/au

E1	1	PORRO MARIANO/AU
E2	1	PORRO MARIO/AU
E3	41 -->	PORRO MASSIMO/AU
E4	2	PORRO MIGUEL E/AU
E5	9	PORRO MONICA/AU
E6	5	PORRO N/AU
E7	2	PORRO N M/AU
E8	1	PORRO NICHOLAS D/AU
E9	1	PORRO NOEL M/AU
E10	7	PORRO NOVO N/AU
E11	1	PORRO O/AU
E12	7	PORRO P/AU

=> s e3

L1 41 "PORRO MASSIMO"/AU

=> e porro m/au

E1	1	PORRO LOUIS G/AU
E2	1	PORRO LUIGI/AU
E3	115 -->	PORRO M/AU
E4	1	PORRO M */AU
E5	2	PORRO M A/AU
E6	4	PORRO M C/AU
E7	4	PORRO M E/AU
E8	25	PORRO M G/AU
E9	24	PORRO M N/AU
E10	1	PORRO M NAZZARO/AU
E11	1	PORRO M R/AU

E12 3 PORRO MARCELLA NAZZARO/AU

=> s e3-e4

L2 116 ("PORRO M"/AU OR "PORRO M \*"/AU)

=> s l1-l2

L3 157 (L1 OR L2)

=> s l3 and bacteri? (10a) vaccin?

7 FILES SEARCHED...

L4 26 L3 AND BACTERI? (10A) VACCIN?

=> s l4 and LPS

L5 8 L4 AND LPS

=> bup rem l5

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=> dup rem l5

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L6 6 DUP REM L5 (2 DUPLICATES REMOVED)

=> d bib ab 1-6

L6 ANSWER 1 OF 6 USPATFULL

AN 2002:60686 USPATFULL

TI **VACCINE** FOR PREVENTION OF GRAM-NEGATIVE BACTERIAL  
INFECTIONS AND ENDOTOXIN RELATED DISEASES

IN **PORRO, MASSIMO**, SIENNA, ITALY

PI US 2002034520 A1 20020321

AI US 1998-124280 A1 19980729 (9)

DT Utility

FS APPLICATION

LREP JAMES V COSTIGAN, HEDMAN GIBSON & COSTIGAN, 1185 AVENUE OF THE AMERICAS,  
NEW YORK, NY, 100362601

CLMN Number of Claims: 53

ECL Exemplary Claim: 1

DRWN 10 Drawing Page(s)

LN.CNT 1029

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A vaccine is disclosed which is useful for protecting a host from Gram  
negative infections and the effects of endotoxin, therefore preventing  
sepsis and septic shock. The vaccine is prepared by combining  
LPS free or in conjugate form with a stoichiometric excess of a  
peptide of the formula:

(a) (A).sub.n wherein A is Lysine or Arginine and n is an integer with a  
minimum value of 7;

(b) (AB).sub.m wherein A is Lysine or Arginine and B is a hydrophobic  
amino acid selected from the group consisting of Valine, Leucine,  
Isoleucine, Tyrosine, Phenylalanine and Tryptophan; m is an integer with  
a minimum value of 3; and

(c) (ABC).sub.p wherein A is a cationic amino acid which is Lysine or  
Arginine; B and C are hydrophobic amino acids which may be the same or  
different and are selected from the group consisting of Valine, Leucine,  
Isoleucine, Tyrosine, Phenylalanine and Tryptophan; p is an integer with  
a minimum value of 2.

L6 ANSWER 2 OF 6 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD DUPLICATE 1

AN 2000-128304 [12] WPIDS  
 DNC C2000-039402  
 TI New **vaccine** for prevention of gram-negative **bacterial** infections and endotoxin related disorders, comprises complex of peptide and **LPS**.  
 DC B04 B05 D16  
 IN **PORRO, M**  
 PA (BIOS-N) BIOSYNTH SRL  
 CYC 26  
 PI EP 976402 A2 20000202 (200012)\* EN 43p  
 R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI  
 CA 2279316 A1 20000129 (200028) EN  
 ADT EP 976402 A2 EP 1999-202476 19990727; CA 2279316 A1 CA 1999-2279316 19990729  
 PRAI US 1998-124280 19980729  
 AB EP 976402 A UPAB: 20000308  
 NOVELTY - A vaccine for preventing gram negative infections and the effects of endotoxins is new and comprises a complex obtained by combining **LPS** free or in conjugate form with a sufficient amount of a peptide which is capable of producing a non-toxic, highly immunogenic complex.  
 DETAILED DESCRIPTION - A vaccine for preventing gram negative infections and the effects of endotoxins is new and comprises a complex obtained by combining **LPS** free or in conjugate form with a sufficient amount of a peptide which is capable of producing a non-toxic, highly immunogenic complex. The peptide is of the formula (a) - (c):  
 (a) (A)n;  
 (b) (AB)m; and/or  
 (c) (ABC)p.  
 A = a cationic amino acid e.g. Lysine or Arginine;  
 B = a hydrophobic amino acid e.g. Valine, Leucine, Isoleucine, Tyrosine, Phenylalanine and Tryptophan;  
 C = a hydrophobic amino acid e.g. Valine, Leucine, Isoleucine, Tyrosine, Phenylalanine and Tryptophan;  
 n = integer of 7-16;  
 m = integer of 4-20;  
 p = integer of 4-20.  
 An INDEPENDENT CLAIM is also included for a method for the preparation of a vaccine for prevention of gram-negative infections and the effects of endotoxins.  
 ACTIVITY - Antibacterial.  
 No relevant activity data given.  
 MECHANISM OF ACTION - The excess peptide significantly stabilizes the **LPS** peptide complex from the likely antagonistic activity of natural **LPS**-receptor proteins present on specialized cells of the immune system.  
 USE - The **vaccine** is useful for the prevention of **bacterial** infections caused by gram-negative bacteria and for the prevention of biological effects of homologous endotoxins, especially for preventing sepsis and septic shock.  
 ADVANTAGE - The toxic characteristic of **LPS** may be removed without eliminating the antigenic and immunogenic properties of **LPS** by binding the **LPS** (via the lipid A moiety) to a peptide.  
 Dwg.0/0  
 L6 ANSWER 3 OF 6 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 2  
 AN 1998:48059 BIOSIS  
 DN PREV199800048059  
 TI A model of Neisseria meningitidis vaccine based on **LPS** micelles detoxified by synthetic anti-endotoxin peptides.  
 AU Velucchi, M.; Rustici, A.; Meazza, C.; Villa, P.; Ghezzi, P.; Tsai, C.-M.; Porro, M. (1)

CS (1) BiosYnth Res. Lab., 53040 Rapolano Terme, Siena Italy  
SO Journal of Endotoxin Research, (Aug., 1997) Vol. 4, No. 4, pp. 261-272.  
ISSN: 0968-0519.  
DT Article  
LA English  
AB We describe a model of vaccine based on detoxified endotoxin (LPS) conserving the supramolecular structure of micelles. Detoxification of LPS from Neisseria meningitidis group A, strain A1 (LPS A1), has been achieved by complex formation with a synthetic anti-endotoxin peptide (SAEP 2) binding to the lipid A moiety of LPS A1 with high affinity. Following subcutaneous injection in SW mice, LPS A1/SAEP 2 complex induced high titers of boostable IgG antibodies against the immunotype determinants of LPS A1, cross-reactive with group B LPS in either purified or cell-associated form. These antibodies were able to functionally fix and activate homologous and heterologous species of complement after binding to LPS A1-coated sheep erythrocytes. None of the IgG antibodies induced were specific for lipid A or SAEP 2 and none of the IgG antibodies cross-reacted with heterologous LPS. The purified IgG polyclonal antibodies significantly inhibited serum TNF production in CD1 mice intravenously challenged by homologous but not heterologous LPS. The immunogenic properties of LPS A1/SAEP 2 complex, investigated by the kinetic, magnitude and sub-isotype composition of the polyclonal antibodies induced, were comparable to those of a glycoconjugate obtained by covalent binding of LPS A1, detoxified by SAEP 2, to BSA working as a T-cell dependent carrier protein. The results obtained suggest that LPS behaves in vivo as a T-cell dependent antigen. The strategy of properly delivering to the immune system of mammals, non-toxic LPS fully expressing its supramolecular antigenic structure, represents a novel approach for development of a new generation of R- and S-LPS/SAEP complex-based vaccines for prophylaxis of specific Gram-negative infections leading to sepsis and endotoxemia.

L6 ANSWER 4 OF 6 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD  
AN 1995-075190 [10] WPIDS  
CR 1993-094304 [11]; 1993-243143 [30]  
DNC C1995-033450  
TI New peptide(s) for neutralising LPS endotoxin - comprising repeating units of a basic aminoacid or basic and hydrophobic amino acids.  
DC B04  
IN PORRO, M  
PA (BIOS-N) BIOSYNTH SRL  
CYC 57  
PI WO 9503327 A2 19950202 (199510)\* EN 25p  
RW: AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE  
W: AM AT AU BB BG BR BY CA CH CN CZ DE DK ES FI GB GE HU JP KE KG KP  
KR KZ LK LT LU LV MD MG MN MW NL NO NZ PL PT RO RU SD SE SI SK TJ  
TT UA US UZ VN  
AU 9474602 A 19950220 (199521)  
WO 9503327 A3 19950504 (199615)  
EP 711307 A1 19960515 (199624) EN  
R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE  
JP 09503489 W 19970408 (199724) 34p  
US 5652211 A 19970729 (199736) 14p  
AU 683920 B 19971127 (199805)  
ADT WO 9503327 A2 WO 1994-EP2413 19940721; AU 9474602 A AU 1994-74602 19940721; EP 711307 A1 EP 1994-924272 19940721, WO 1994-EP2413 19940721; JP 09503489 W WO 1994-EP2413 19940721, JP 1995-504948 19940721; US 5652211 A CIP of US 1991-658744 19910211, CIP of US 1992-819893 19920116, CIP of US 1993-49871 19930419, US 1993-97830 19930726; AU 683920 B AU 1994-74602 19940721  
FDT AU 9474602 A Based on WO 9503327; EP 711307 A1 Based on WO 9503327; JP 09503489 W Based on WO 9503327; US 5652211 A CIP of US 5358933, CIP of US

5371186; AU 683920 B Previous Publ. AU 9474602, Based on WO 9503327  
PRAI US 1993-97830 19930726; US 1991-658744 19910211; US 1992-819893  
19920116; US 1993-49871 19930419  
AB WO 9503327 A UPAB: 19970915  
(A) Novel linear or cyclic peptides have units of formula: (a) (A)<sub>n</sub>; A = Lys or Arg; n = 7-10; (b) (AB)<sub>m</sub>; B = Val, Leu, Ile, Tyr, Phe or Trp; m is an integer with a minimum value of 3; and (c) (ABC)<sub>p</sub>; C = as for B; p is an integer with a minimum value of 2. (B) Also claimed is a peptide compsn. which includes a peptide having units as in (A) or units (A)<sub>n</sub>1 where n1 is an integer with a minimum value of 7, and a carrier.  
USE - The peptides bind to the Lipid A moiety of lipopolysaccharide (LPS) and detoxify Lipid A in vitro and in vivo and thus neutralise the effects of endotoxin. The peptides can be used for treating or preventing septic shock (claimed). They can also be used to detoxify the endotoxin in the prodn. of a vaccine against the endotoxin. They can also be used to detoxify e.g. **vaccines**, drug solns., injectable nutrient solns. and **bacterial** cultures.  
Dwg.0/0

L6 ANSWER 5 OF 6 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD  
AN 1993-243143 [30] WPIDS  
CR 1993-094304 [11]; 1995-075190 [10]  
DNC C1993-108365  
TI New peptide(s) which neutralise lipid A of bacterial endotoxin - forming non-toxic, antigenic complex, used to treat or prevent septic shock, in vaccines to detoxify blood, etc..  
DC B04  
IN **PORRO, M**  
PA (PORR-I) PORRO M; (BIOS-N) BIOSYNTH SRL  
CYC 40  
PI WO 9314115 A1 19930722 (199330)\* EN 45p  
RW: AT BE CH DE DK ES FR GB GR IT LU MC NL OA SE  
W: AT AU BB BG BR CA CH CS DE DK ES FI GB HU JP KP KR LK LU MG MW NL NO RO RU SD SE UA US  
AU 9216914 A 19930803 (199348)  
TW 215441 A 19931101 (199403)  
FI 9403396 A 19940715 (199435)  
EP 623144 A1 19941109 (199443) EN  
R: AT BE CH DE DK ES FR GB GR IT LI LU MC NL SE  
US 5371186 A 19941206 (199503) 7p  
NZ 241446 A 19950328 (199519)  
JP 07505606 W 19950622 (199533) 12p  
HU 69707 T 19950928 (199546)  
AU 665945 B 19960125 (199611)  
US 5589459 A 19961231 (199707) 13p  
MX 183669 B 19970108 (199816)  
IL 100811 A 19990714 (199935)  
EP 623144 B1 20020123 (200207) EN  
R: AT BE CH DE DK ES FR GB GR IT LI LU MC NL SE  
ADT WO 9314115 A1 WO 1992-EP1060 19920514; AU 9216914 A AU 1992-16914 19920514, WO 1992-EP1060 19920514; TW 215441 A TW 1992-100786 19920201; FI 9403396 A WO 1992-EP1060 19920514, FI 1994-3396 19940715; EP 623144 A1 EP 1992-910229 19920514, WO 1992-EP1060 19920514; US 5371186 A CIP of US 1991-658744 19910211, US 1992-819893 19920116; NZ 241446 A NZ 1992-241446 19920129; JP 07505606 W JP 1992-509191 19920514, WO 1992-EP1060 19920514; HU 69707 T WO 1992-EP1060 19920514, HU 1994-1970 19920514; AU 665945 B AU 1992-16914 19920514; US 5589459 A CIP of US 1991-658744 19910211, Div ex US 1992-819893 19920116, US 1994-280397 19940726; MX 183669 B MX 1992-582 19920211; IL 100811 A IL 1992-100811 19920130; EP 623144 B1 EP 1992-910229 19920514, WO 1992-EP1060 19920514  
FDT AU 9216914 A Based on WO 9314115; EP 623144 A1 Based on WO 9314115; JP 07505606 W Based on WO 9314115; HU 69707 T Based on WO 9314115; AU 665945 B Previous Publ. AU 9216914, Based on WO 9314115; US 5589459 A Div ex US 5371186; EP 623144 B1 Based on WO 9314115

PRAI US 1992-819893 19920116; US 1991-658744 19910211; US 1994-280397  
19940726

AB WO 9314115 A UPAB: 20020130

Monomeric or polymeric, linear or cyclic, peptides of formula  
R1-(A-B-C)n-R (I) are new; R1 and R2 = H or the residue of an amino acid  
or fatty acid; A = Lys, Arg or His; B = Phe, Tyr or Trp; C = Leu, Ile or  
Val; n = 1-100.

Also new are peptides having the retro-amino acid, all D-amino acid  
or mixed D- and L-amino acid sequences of (I), or similar to (I) but with  
inverted positions for amino acids.

More specifically, A-B-C is Lys-Phe-Leu; n = 1-10.

USE/ADVANTAGE - (I) bind to the lipid A component of endotoxin (LPS) at the same site as polymyxin B (PMB) and with about the same affinity to produce a non-toxic antigenic complex (C). Unlike PMB, (I) are not toxic; are susceptible to proteolytic degradation in serum; have no antibiotic activity and no haemolytic action. (I) are esp. used to treat or prevent septic shock; to reduce toxicity of PMB; to remove endotoxins from blood, sera, vaccines, drug soln., etc.; to control release of cytokines induced by endotoxins; for in vivo or in vitro detoxification of bacterial endotoxins, and to detect or quantify endotoxins in blood products or soln. (C) can be used to raise antibodies (Ab) against lipid A or LPS, i.e. in vaccines, or to produce Ab for use in diagnosis and passive immunisation. For control of septic shock the pref. dose of (I) is 0.01-0.1 mg/kg, pref. given intravenously  
Dwg.0/1

L6 ANSWER 6 OF 6 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD

AN 1993-370140 [47] WPIDS

DNC C1993-164189

TI New immunogenic conjugates for prevention of septic shock - produced by conjugating new D-Glucosamine di saccharide deriv. with carrier protein.

DC B03

IN PORRO, M

PA (AMCY) AMERICAN CYANAMID CO

CYC 22

PI EP 570682 A1 19931124 (199347)\* EN 25p

R: AT BE CH DE DK ES FR GB GR IE IT LI LU NL PT SE

AU 9338419 A 19931111 (199401)

NO 9301655 A 19931108 (199402)

FI 9302053 A 19931108 (199404)

CA 2095588 A 19931108 (199406)

JP 06041200 A 19940215 (199411) 23p

AU 664609 B 19951123 (199603)

NO 180234 B 19961202 (199703)

EP 570682 B1 19970723 (199734) EN 27p

R: AT BE CH DE DK ES FR GB GR IE IT LI LU NL PT SE

DE 69312391 E 19970828 (199740)

ES 2104984 T3 19971016 (199748)

SG 47582 A1 19980417 (199826)

ADT EP 570682 A1 EP 1993-104369 19930317; AU 9338419 A AU 1993-38419 19930506; NO 9301655 A NO 1993-1655 19930506; FI 9302053 A FI 1993-2053 19930506; CA 2095588 A CA 1993-2095588 19930505; JP 06041200 A JP 1993-129939 19930506; AU 664609 B AU 1993-38419 19930506; NO 180234 B NO 1993-1655 19930506; EP 570682 B1 EP 1993-104369 19930317; DE 69312391 E DE 1993-612391 19930317; EP 1993-104369 19930317; ES 2104984 T3 EP 1993-104369 19930317; SG 47582 A1 SG 1996-2942 19930317

FDT AU 664609 B Previous Publ. AU 9338419; NO 180234 B Previous Publ. NO 9301655; DE 69312391 E Based on EP 570682; ES 2104984 T3 Based on EP 570682

PRAI US 1992-879403 19920507

AB EP 570682 A UPAB: 19940111

An immunogenic conjugate for the treatment of septic shock of formula (I) is new. (P' = H or phosphate; R2 = 1-4C alkyl; P2 = H, propyl, allyl or phosphate; n = 1-30; Q = a carrier protein or peptide; Q may be e.g.

CRM197, diphtheria toxoid or tetanus toxoid or peptides derived from these). Disaccharide cpds. of formula (II) are new. R1 = H or acyl; R3 = H or CO(CH2)4COOX; X = (a); P' = H or phosphate; P2 = H, propyl, allyl or phosphate.

USE/ADVANTAGE - The glycoconjugates, by virtue of their conjugation to a carrier protein, enhance the immogenicity of the disaccharides they carry. They can be used in **vaccines** to confer protection against septic shock caused by **bacteria** which produce lipopolysaccharides (**LPS**), e.g. E.coli, N meningitidis, S.typhi, K.pneumoniae or P.aeruginosa.  
Dwg.0/0

=> s l3 and lps  
L7 34 L3 AND LPS

=> s l7 and (vaccin? or antigen?)  
L8 25 L7 AND (VACCIN? OR ANTIGEN?)

=> s l8 and gram-negative  
L9 18 L8 AND GRAM-NEGATIVE

=> dup rem l9  
PROCESSING COMPLETED FOR L9  
L10 10 DUP REM L9 (8 DUPLICATES REMOVED)

=> d bib ab 1-10

L10 ANSWER 1 OF 10 USPATFULL  
AN 2002:60686 USPATFULL  
TI **VACCINE FOR PREVENTION OF GRAM-NEGATIVE**  
BACTERIAL INFECTIONS AND ENDOTOXIN RELATED DISEASES  
IN **PORRO, MASSIMO, SIENA, ITALY**  
PI US 2002034520 A1 20020321  
AI US 1998-124280 A1 19980729 (9)  
DT Utility  
FS APPLICATION  
LREP JAMES V COSTIGAN, HEDMAN GIBSON & COSTIGAN, 1185 AVENUE OF THE AMERICAS,  
NEW YORK, NY, 100362601  
CLMN Number of Claims: 53  
ECL Exemplary Claim: 1  
DRWN 10 Drawing Page(s)  
LN.CNT 1029

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A **vaccine** is disclosed which is useful for protecting a host from **Gram negative** infections and the effects of endotoxin, therefore preventing sepsis and septic shock. The **vaccine** is prepared by combining **LPS** free or in conjugate form with a stoichiometric excess of a peptide of the formula:

(a) (A).sub.n wherein A is Lysine or Arginine and n is an integer with a minimum value of 7;

(b) (AB).sub.m wherein A is Lysine or Arginine and B is a hydrophobic amino acid selected from the group consisting of Valine, Leucine, Isoleucine, Tyrosine, Phenylalanine and Tryptophan; m is an integer with a minimum value of 3; and

(c) (ABC).sub.p wherein A is a cationic amino acid which is Lysine or Arginine; B and C are hydrophobic amino acids which may be the same or different and are selected from the group consisting of Valine, Leucine, Isoleucine, Tyrosine, Phenylalanine and Tryptophan; p is an integer with a minimum value of 2.



L10 ANSWER 2 OF 10 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD DUPLICATE  
1

AN 2000-128304 [12] WPIDS  
DNC C2000-039402  
TI New **vaccine** for prevention of **gram-negative** bacterial infections and endotoxin related disorders, comprises complex of peptide and **LPS**.  
DC B04 B05 D16  
IN **PORRO, M**  
PA (BIOS-N) BIOSYNTH SRL  
CYC 26  
PI EP 976402 A2 20000202 (200012)\* EN 43p  
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
RO SE SI  
CA 2279316 A1 20000129 (200028) EN  
ADT EP 976402 A2 EP 1999-202476 19990727; CA 2279316 A1 CA 1999-2279316  
19990729  
PRAI US 1998-124280 19980729  
AB EP 976402 A UPAB: 20000308  
NOVELTY - A **vaccine** for preventing **gram negative** infections and the effects of endotoxins is new and comprises a complex obtained by combining **LPS** free or in conjugate form with a sufficient amount of a peptide which is capable of producing a non-toxic, highly immunogenic complex.  
DETAILED DESCRIPTION - A **vaccine** for preventing **gram negative** infections and the effects of endotoxins is new and comprises a complex obtained by combining **LPS** free or in conjugate form with a sufficient amount of a peptide which is capable of producing a non-toxic, highly immunogenic complex. The peptide is of the formula (a) - (c):  
(a) (A)n;  
(b) (AB)m; and/or  
(c) (ABC)p.  
A = a cationic amino acid e.g. Lysine or Arginine;  
B = a hydrophobic amino acid e.g. Valine, Leucine, Isoleucine, Tyrosine, Phenylalanine and Tryptophan;  
C = a hydrophobic amino acid e.g. Valine, Leucine, Isoleucine, Tyrosine, Phenylalanine and Tryptophan;  
n = integer of 7-16;  
m = integer of 4-20;  
p = integer of 4-20.  
An INDEPENDENT CLAIM is also included for a method for the preparation of a **vaccine** for prevention of **gram-negative** infections and the effects of endotoxins.  
ACTIVITY - Antibacterial.  
No relevant activity data given.  
MECHANISM OF ACTION - The excess peptide significantly stabilizes the **LPS** peptide complex from the likely antagonistic activity of natural **LPS**-receptor proteins present on specialized cells of the immune system.  
USE - The **vaccine** is useful for the prevention of bacterial infections caused by **gram-negative** bacteria and for the prevention of biological effects of homologous endotoxins, especially for preventing sepsis and septic shock.  
ADVANTAGE - The toxic characteristic of **LPS** may be removed without eliminating the **antigenic** and immunogenic properties of **LPS** by binding the **LPS** (via the lipid A moiety) to a peptide.  
Dwg.0/0

L10 ANSWER 3 OF 10 MEDLINE DUPLICATE 2  
AN 2000143784 MEDLINE  
DN 20143784 PubMed ID: 10678985  
TI Influence of synthetic antiendotoxin peptides on lipopolysaccharide (

**LPS**) recognition and **LPS**-induced proinflammatory cytokine responses by cells expressing membrane-bound CD14.

AU Iwagaki A; Porro M; Pollack M

CS Department of Medicine, Uniformed Services University of the Health Sciences, F. Edward Hebert School of Medicine, Bethesda, Maryland 20814, USA.

SO INFECTION AND IMMUNITY, (2000 Mar) 68 (3) 1655-63.

Journal code: GO7; 0246127. ISSN: 0019-9567.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 200003

ED Entered STN: 20000327

Last Updated on STN: 20000327

Entered Medline: 20000316

AB Lipopolysaccharides (**LPS**) are proinflammatory bacterial products implicated in the pathogenesis of **gram-negative** sepsis and septic shock. Polymyxin B (PMB), a cyclic, cationic peptide antibiotic, inhibits biological activities of **LPS** through high-affinity binding to the lipid A moiety. Small synthetic peptides have been designed to mimic the primary and secondary structures of PMB to determine structural requirements for binding and detoxification of lipid A and to assess possible therapeutic potential. The purpose of this study was to compare and contrast the endotoxin-neutralizing activities of two synthetic antiendotoxin peptides (SAEP-2 and SAEP-4), PMB, and an **LPS** core-specific monoclonal antibody (MAb), WN1 222-5, based on their abilities to inhibit CD14-mediated target cell uptake of fluorescein isothiocyanate (FITC)-conjugated **LPS**, detected by flow cytometry and confocal microscopy, and **LPS**-induced production of the proinflammatory cytokines, interleukin-6 (IL-6) and tumor necrosis factor alpha (TNF-alpha), as measured by bioassays. PMB and SAEP-4 produced dose-dependent inhibition of FITC-**LPS** uptake by CD14-transfected Chinese hamster ovary fibroblasts (CHO-CD14 cells) and by human peripheral blood mononuclear cells. The anti-**LPS** MAb, WN1 222-5, also blocked **LPS** uptake by these cells and synergized with PMB and SAEP-4. **LPS**-induced IL-6 release was inhibited by PMB, SAEP-4, and MAb WN1 222-5, and these inhibitory activities were additive or synergistic. **LPS**-induced TNF-alpha release by PBMC was also inhibited by PMB and SAEP-4 alone and in combination with anti-**LPS** MAb. SAEP-2, in contrast, produced comparatively minor decrements in cellular uptake of **LPS** and **LPS**-induced cytokine responses, and did so only in the absence of serum, while a nonsense peptide exerted no discernible inhibitory effect on **LPS** uptake or **LPS**-induced cytokine expression in the presence or absence of serum. Thus, PMB and SAEP-4, like the **LPS**-reactive MAb, WN1 222-5, block proinflammatory activities of **LPS** in part by preventing **LPS** recognition by membrane-bound CD14-expressing target cells. Differences in peptide structure, however, like those exemplified by SAEP-2 and SAEP-4, may differentially affect the endotoxin-neutralizing potency of these peptides despite similar binding activity against lipid A, reflecting possible differences in peptide solubility or peptide regulation of intracellular signal transduction.

L10 ANSWER 4 OF 10 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD

AN 1998-263059 [24] WPIDS

DNC C1998-081686

TI Use of anti-endotoxin synthetic peptides and anti-endotoxin antibodies - for the prophylaxis and treatment of endotoxicosis and septic shock and other conditions associated with lipopolysaccharide..

DC B04 B05

IN PORRO, M

PA (BIOS-N) BIOSYNTH SRL

CYC 24

PI EP 842666 A2 19980520 (199824)\* EN 5p  
R: AL AT BE CH DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO  
SE SI

IT 1287158 B 19980804 (200055)

ADT EP 842666 A2 EP 1997-203526 19971112; IT 1287158 B IT 1996-MI2354 19961113

PRAI IT 1996-MI2354 19961113

AB EP 842666 A UPAB: 19980617

Composition comprises (a) an endotoxin binding peptide which is a monomer, linear polymer, cyclic monomer or cyclic polymer of formula (I)

R1-(A-B-C)n-R (I) R, R1 = H, amino acid residue or fatty acid residue; A = Lysine, Arginine or Histidine; B = Phenylalanine, Tyrosine or Tryptophan; C = Leucine, Isoleucine or Valine; n = 1-100 ; (b) a compound of formula (A)n A = Lysine and/or Arginine; n = 7 or more; (c) (AB)m A = Lysine or Arginine; B = a hydrophobic amino acid selected from Valine, Leucine, Isoleucine, Tyrosine, Phenylalanine or Tryptophan; m = 3 or more; (d) (ABC)p A = cationic amino acid selected from Lysine and/or Arginine; B ,C = hydrophobic amino acids selected from Valine, Leucine, Isoleucine, Tyrosine, Phenylalanine and Tryptophan; p = or more; and (2) an antibody specifically binding to the **antigenic** determinants present in the endotoxin core of different genera of **Gram-negative** bacteria, where the core consists essentially of Lipid A and of the immediately adjacent core oligosaccharide covalently bound to the Lipid A of the endotoxin wherein the antibody binds to the endotoxin core form at least one species of **Gram-negative** bacteria from each kind of endotoxin oligosaccharide core region produced by Escherichia, Salmonella, Pseudomonas, Klebisella and Neisseria.

USE - The composition is used to detoxify lipopolysaccharide ( **LPS**) in vivo and in vitro and is used for the prophylaxis and/or treatment of endotoxemia and septic shock and for the removal of **LPS** from substrates that are prepared for infusion into humans or animals. The composition may also be used to treat other conditions where **LPS** is the principal cause e.g. bacterial meningitis, viral HIV-related infections and pertussis. The dosage of the peptide is 0.1(g/kg-2mg/kg and dosage of the antibody is 0.1(g/kg-15mg/kg. Dwg.0/0

L10 ANSWER 5 OF 10 USPATFULL

AN 97:66100 USPATFULL

TI Peptides for neutralizing the toxicity of Lipid A

IN Porro, Massimo, Siena, Italy

PA BiosYnth S.r.l., Siena, Italy (non-U.S. corporation)

PI US 5652211 19970729

AI US 1993-97830 19930726 (8)

RLI Continuation-in-part of Ser. No. US 1993-49871, filed on 19 Apr 1993, now patented, Pat. No. US 5358933 And Ser. No. US 1992-819893, filed on 16 Jan 1992, now patented, Pat. No. US 5371186 which is a continuation-in-part of Ser. No. US 1991-658744, filed on 11 Feb 1991, now abandoned , said Ser. No. US -49871 which is a continuation of Ser. No. US -658744

DT Utility

FS Granted

EXNAM Primary Examiner: Russell, Jeffrey E.

LREP Hedman, Gibson & Costigan, P.C.

CLMN Number of Claims: 39

ECL Exemplary Claim: 36,38

DRWN No Drawings

LN.CNT 683

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is concerned with a peptide composition which includes a peptide having units of the formula:

(a) (A).sub.n wherein A is Lysine or Arginine and n is an integer with a minimum value of 7.

(b) (AB).sub.m wherein A is Lysine or Arginine and B is a hydrophobic amino acid selected from the group consisting of Valine, Leucine, Isoleucine, Tyrosine, Phenylalanine and Tryptophan; m is an integer with a minimum value of 3; and

(c) (ABC).sub.p wherein A is a cationic amino acid which is Lysine or Arginine; B and C are hydrophobic amino acids which may be the same or different and are selected from the group consisting of Valine, Leucine, Isoleucine, Tyrosine, Phenylalanine and Tryptophan; p is an integer with a minimum value of 2. The compositions of the invention bind Lipid-A of endotoxins.

L10 ANSWER 6 OF 10 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE  
3

AN 1998:48059 BIOSIS

DN PREV199800048059

TI A model of Neisseria meningitidis vaccine based on LPS

micelles detoxified by synthetic anti-endotoxin peptides.

AU Velucchi, M.; Rustici, A.; Meazza, C.; Villa, P.; Ghezzi, P.; Tsai, C.-M.; Porro, M. (1)

CS (1) BiosYnth Res. Lab., 53040 Rapolano Terme, Siena Italy

SO Journal of Endotoxin Research, (Aug., 1997) Vol. 4, No. 4, pp. 261-272.  
ISSN: 0968-0519.

DT Article

LA English

AB We describe a model of vaccine based on detoxified endotoxin (LPS) conserving the supramolecular structure of micelles. Detoxification of LPS from Neisseria meningitidis group A, strain A1 (LPS A1), has been achieved by complex formation with a synthetic anti-endotoxin peptide (SAEP 2) binding to the lipid A moiety of LPS A1 with high affinity. Following subcutaneous injection in SW mice, LPS A1/SAEP 2 complex induced high titers of boostable IgG antibodies against the immunotype determinants of LPS A1, cross-reactive with group B LPS in either purified or cell-associated form. These antibodies were able to functionally fix and activate homologous and heterologous species of complement after binding to LPS A1-coated sheep erythrocytes. None of the IgG antibodies induced were specific for lipid A or SAEP 2 and none of the IgG antibodies cross-reacted with heterologous LPS. The purified IgG polyclonal antibodies significantly inhibited serum TNF production in CD1 mice intravenously challenged by homologous but not heterologous LPS. The immunogenic properties of LPS A1/SAEP 2 complex, investigated by the kinetic, magnitude and sub-isotype composition of the polyclonal antibodies induced, were comparable to those of a glycoconjugate obtained by covalent binding of LPS A1, detoxified by SAEP 2, to BSA working as a T-cell dependent carrier protein. The results obtained suggest that LPS behaves in vivo as a T-cell dependent antigen. The strategy of properly delivering to the immune system of mammals, non-toxic LPS fully expressing its supramolecular antigenic structure, represents a novel approach for development of a new generation of R- and S-LPS/SAEP complex-based vaccines for prophylaxis of specific Gram-negative infections leading to sepsis and endotoxemia.

L10 ANSWER 7 OF 10 USPATFULL

AN 96:120869 USPATFULL

TI Synthetic peptides for detoxification of bacterial endotoxins and for the prevention and treatment of septic shock

IN Porro, Massimo, Siena, Italy

PA BiosYnth s.r.l., Siena, Italy (non-U.S. corporation)

PI US 5589459 19961231

AI US 1994-280397 19940726 (8)

RLI Division of Ser. No. US 1992-819893, filed on 16 Jan 1992, now patented,

Pat. No. US 5371186 which is a continuation-in-part of Ser. No. US 1991-658744, filed on 11 Feb 1991, now abandoned

DT Utility  
FS Granted  
EXNAM Primary Examiner: Davenport, Avis M.  
LREP Hedman, Gibson & Costigan, P.C.  
CLMN Number of Claims: 14  
ECL Exemplary Claim: 1  
DRWN 1 Drawing Figure(s); 1 Drawing Page(s)  
LN.CNT 899

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides methods of using peptides of the formula R.sub.1 --(A--B--C).sub.n --R, wherein R.sub.1 and R are independently H or an amino acid residue or a fatty acid residue; A is an amino acid residue selected from the group consisting of Lys and Arg; B is an amino acid selected from the group consisting of Phe, Tyr, and Trp; C is an amino acid selected from the group consisting of Leu, Ile and Val; n is an integer of 1-100. The peptides are used for the removal of endotoxin from blood or sera; the detoxification of bacterial endotoxin; and the prevention of the contamination of products with endotoxin.

L10 ANSWER 8 OF 10 USPATFULL

AN 94:106884 USPATFULL  
TI Synthetic peptides for detoxification of bacterial endotoxins and for the prevention and treatment of septic shock  
IN Porro, Massimo, Siena, Italy  
PA Biosynth S.r.l., Siena, Italy (non-U.S. corporation)  
PI US 5371186 19941206  
AI US 1992-819893 19920116 (7)  
DCD 20111025  
RLI Continuation-in-part of Ser. No. US 1991-658744, filed on 11 Feb 1991, now abandoned  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Lee, Lester L.; Assistant Examiner: Davenport, A. M.  
LREP Hedman, Gibson & Costigan  
CLMN Number of Claims: 11  
ECL Exemplary Claim: 1  
DRWN 1 Drawing Figure(s); 1 Drawing Page(s)  
LN.CNT 852

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides novel peptides of the formula R.sub.1 --(A-B-C).sub.n --R, where R.sub.1 and R are independently H or an amino acid residue or a fatty acid residue; A is an amino acid residue selected from the group consisting of Lys, Arg, and His; B is an amino acid selected from the group consisting of Phe, Tyr, and Trp; C is an amino acid selected from the group consisting of Leu, Ile and Val; n is an integer of 1-100. The peptides are used inter alia for the prevention and/or treatment of septic shock, for the detection of endotoxin and the preparation of antigenic complexes of Lipid A.

L10 ANSWER 9 OF 10 USPATFULL

AN 94:93312 USPATFULL  
TI Synthetic peptides for detoxification of bacterial endotoxins and for the prevention and treatment of septic shock  
IN Porro, Massimo, Siena, Italy  
PA Biosynth S.r.l., Siena, Italy (non-U.S. corporation)  
PI US 5358933 19941025  
AI US 1993-49871 19930419 (8)  
RLI Continuation of Ser. No. US 1991-658744, filed on 11 Feb 1991, now abandoned  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Lee, Lester L.; Assistant Examiner: Marshall, S. G.

LREP Hedman, Gibson & Costigan  
CLMN Number of Claims: 16  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 483

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Novel peptides are disclosed which are based on the formula:

R.sub.1 (Lys-Phe-Leu).sub.n --R

wherein n is an integer of from 1-10 and R and R.sub.1 are H or an amino acid residue or a fatty acid residue which are useful in the treatment of septic shock.

L10 ANSWER 10 OF 10 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE  
4

AN 1993:145833 BIOSIS

DN PREV199395078633

TI Molecular mapping and detoxification of the lipid A binding site by synthetic peptides.

AU Rustici, Alessandro; Velucchi, Massimo; Faggioni, Raffaella; Sironi, Marina; Ghezzi, Pietro; Quataert, Sally; Green, Bruce; Porro, Massimo (1)

CS (1) Biosynth Res. Lab., Rapolano Terme, Siena, Italy 53040

SO Science (Washington D C), (1993) Vol. 259, No. 5093, pp. 361-365.  
ISSN: 0036-8075.

DT Article

LA English

AB Endotoxin (lipopolysaccharide (LPS)), the major antigen of the outer membrane of Gram-negative bacteria, consists of a variable-size carbohydrate chain that is covalently linked to N, O-acylated beta-1, 6-D-glucosamine disaccharide 1,4'-bisphosphate (lipid A). The toxic activity of LPS residues in the lipid A structure. The structural features of synthetic peptides that bind to lipid A with high affinity, detoxify LPS in vitro, and prevent LPS-induced cytokine release and lethality in vivo were defined. The binding thermodynamics were comparable to that of an antigen-antibody reaction. Such synthetic peptides may provide a strategy of prophylaxis and the treatment of LPS-mediated diseases.

=> s LPS and (vaccin? or antigen?)

L11 27290 LPS AND (VACCIN? OR ANTIGEN?)

=> s l11 and endotoxin

L12 3242 L11 AND ENDOTOXIN

=> s l12 and excess (5a) peptid?

L13 20 L12 AND EXCESS (5A) PEPTID?

=> dup rem l13

PROCESSING COMPLETED FOR L13

L14 19 DUP REM L13 (1 DUPLICATE REMOVED)

=> d bib ab 1-19

L14 ANSWER 1 OF 19 USPATFULL

AN 2002:60686 USPATFULL

TI VACCINE FOR PREVENTION OF GRAM-NEGATIVE BACTERIAL INFECTIONS  
AND ENDOTOXIN RELATED DISEASES

IN PORRO, MASSIMO, SIENA, ITALY

PI US 2002034520 A1 20020321

AI US 1998-124280 A1 19980729 (9)

DT Utility

FS APPLICATION  
LREP JAMES V COSTIGAN, HEDMAN GIBSON & COSTIGAN, 1185 AVENUE OF THE AMERICAS,  
NEW YORK, NY, 100362601  
CLMN Number of Claims: 53  
ECL Exemplary Claim: 1  
DRWN 10 Drawing Page(s)  
LN.CNT 1029

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A **vaccine** is disclosed which is useful for protecting a host from Gram negative infections and the effects of **endotoxin**, therefore preventing sepsis and septic shock. The **vaccine** is prepared by combining **LPS** free or in conjugate form with a stoichiometric **excess** of a **peptide** of the formula:

(a) (A).sub.n wherein A is Lysine or Arginine and n is an integer with a minimum value of 7;

(b) (AB).sub.m wherein A is Lysine or Arginine and B is a hydrophobic amino acid selected from the group consisting of Valine, Leucine, Isoleucine, Tyrosine, Phenylalanine and Tryptophan; m is an integer with a minimum value of 3; and

(c) (ABC).sub.p wherein A is a cationic amino acid which is Lysine or Arginine; B and C are hydrophobic amino acids which may be the same or different and are selected from the group consisting of Valine, Leucine, Isoleucine, Tyrosine, Phenylalanine and Tryptophan; p is an integer with a minimum value of 2.

L14 ANSWER 2 OF 19 USPATFULL

AN 2002:57555 USPATFULL

TI High speed, automated, continuous flow, multi-dimensional molecular selection and analysis

IN Jindal, Satish, Milton, MA, United States  
Regnier, Fred, West Lafayette, IN, United States  
Williams, Kevin, Natick, MA, United States  
Afeyan, Noubar, Lexington, MA, United States  
Paliwal, Sandeep, Mountain View, CA, United States  
Evans, David, Medfield, MA, United States  
Pingali, Aruna, Westboro, MA, United States

PA PerSeptive Biosystems, Inc., Framingham, MA, United States (U.S. corporation)

PI US 6358692 B1 20020319

AI US 1999-267993 19990312 (9)

RLI Continuation of Ser. No. US 1996-670670, filed on 26 Jun 1996, now abandoned

PRAI US 1995-518P 19950626 (60)

DT Utility

FS GRANTED

EXNAM Primary Examiner: Celsa, Bennett

LREP Testa, Hurwitz & Thibeault, LLP

CLMN Number of Claims: 19

ECL Exemplary Claim: 1

DRWN 8 Drawing Figure(s); 11 Drawing Page(s)

LN.CNT 2639

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides novel methods for screening a sample to select a ligand to a target of interest and for obtaining information about the ligand and its binding characteristics. Specifically, the claimed multi-dimensional methods involve combining a solution of heterogeneous ligands with the target of interest to screen the ligands on the basis of one or more binding characteristics. Ligands having the first binding characteristic bind to the target of interest thereby to form a target/ligand complex. The complex then optionally is separated from the unbound components using any of a variety of separation techniques,

e.g., size exclusion. At least one of the complex or unbound components then is introduced to a second "dimension". The second dimension is capable of separating components based upon a second binding characteristic. One then elutes the ligand having the desired binding characteristics.

L14 ANSWER 3 OF 19 USPATFULL

AN 2002:13790 USPATFULL

TI Superantigen based methods and compositions for treatment of diseases

IN Terman, David Stephen, 3183 Palmero Way, Pebble Beach, CA, United States  
93953

PI US 6340461 B1 20020122

AI US 1997-992877 19971217 (8)

PRAI US 1996-33172P 19961217 (60)

US 1997-44074P 19970417 (60)

DT Utility

FS GRANTED

EXNAM Primary Examiner: Bansal, Geetha P.

LREP Venable, Livnat, Shmuel

CLMN Number of Claims: 7

ECL Exemplary Claim: 1,6

DRWN 8 Drawing Figure(s); 8 Drawing Page(s)

LN.CNT 5893

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to therapeutic methods and compositions employing superantigens. Methods and compositions employing superantigens and immunotherapeutic proteins in combination with one another have been found to provide more effective treatment than either component used alone. Superantigens, in conjunction with one or more additional immunotherapeutic **antigens**, may be used to either induce a therapeutic immune response directed against a target or to inhibit a disease causing immune response. Specific combinations of superantigens and immunotherapeutic **antigens** are used to treat specific diseases. The induction (or augmentation) of a desired immune against a target may be used, for example, to kill cancer cells or kill the cells or an infectious agent. The inhibition of an immune response, e.g., through the induction of T cell anergy, may be used to reduce the symptoms of an autoimmune disease. Diseases that may be treated by the methods and compositions of the invention include neoplastic diseases, infectious diseases, and autoimmune diseases. One aspect of the invention is to provide methods for the treatment of diseases comprising the steps of administering an effective amount of a superantigen and an immunotherapeutic so as to have the desired therapeutic effect. The superantigen and immunotherapeutic **antigen** may be administered together as a mixture. Alternatively, the superantigen and immunotherapeutic **antigen** may be administered separately. In one embodiment of the invention, the superantigen and immunotherapeutic **antigen** are administered to the patient in the form of a immunotherapeutic **antigen**-superantigen polymer of the invention. Another aspect of the invention is to provide methods for the treatment of diseases comprising the steps of incubating a lymphocyte population ex vivo a superantigen and an immunotherapeutic protein so as to either activate or anergize T cells within the selected population.

L14 ANSWER 4 OF 19 USPATFULL

AN 2001:87943 USPATFULL

TI Neurotactin and uses therefor

IN Pan, Yang, Brookline, MA, United States

PI US 2001000075 A1 20010329

AI US 2000-728401 A1 20001201 (9)

RLI Continuation of Ser. No. US 2000-481485, filed on 11 Jan 2000, PENDING  
Continuation of Ser. No. US 1997-991426, filed on 16 Dec 1997, GRANTED,  
Pat. No. US 6013257 Continuation-in-part of Ser. No. US 1997-851160,  
filed on 5 May 1997, PENDING Continuation-in-part of Ser. No. US



1996-643798, filed on 7 May 1996, PENDING  
DT Utility  
FS APPLICATION  
LREP ANITA L. MEIKLEJOHN, PH.D., Fish & Richardson P.C., 225 Franklin Street,  
Boston, MA, 02110-2804  
CLMN Number of Claims: 21  
ECL Exemplary Claim: 1  
DRWN 8 Drawing Page(s)  
LN.CNT 2232

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to the identification and characterization of a novel, membrane-anchored chemokine, neurotactin. Sequence analysis of neurotactin reveals that, while it includes an amino terminal domain which resembles that of other chemokines, it has an overall structure which distinguishes it from all presently identified chemokines. Neurotactin is highly expressed in normal mammalian brain. Inhibitors of neurotactin expression or activity can be used to treat inflammation.

L14 ANSWER 5 OF 19 USPATFULL

AN 2001:168247 USPATFULL  
TI Polynucleotide encoding TNFL1  
IN Tribouley, Catherine, San Francisco, CA, United States  
PA Chiron Corporation, Emeryville, CA, United States (U.S. corporation)  
PI US 6297367 B1 20011002  
AI US 1999-286529 19990405 (9)  
RLI Continuation-in-part of Ser. No. US 1998-212270, filed on 16 Dec 1998  
DT Utility  
FS GRANTED  
EXNAM Primary Examiner: Spector, Lorraine; Assistant Examiner: O'Hara, Eileen B.  
LREP Potter, Jane E. R., Morley, Kimberlin L., Blackburn, Robert P.  
CLMN Number of Claims: 6  
ECL Exemplary Claim: 1  
DRWN 17 Drawing Figure(s); 9 Drawing Page(s)  
LN.CNT 1970

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB New members of the TNF and the TNFR superfamily of proteins have been identified. These proteins are promising targets for therapeutic intervention and mimesis. TNF-L and TNFR-L proteins can be used to induce cell death and/or proliferation of cells. Members of these superfamilies have been implicated in a broad variety of disease processes, making them central biological and physiological regulators.

L14 ANSWER 6 OF 19 USPATFULL

AN 2001:117154 USPATFULL  
TI Methods and compositions for inhibiting endothelial cell and fibrinogen mediated inflammation  
IN Altieri, Dario C., La Jolla, CA, United States  
Languino, Lucia R., La Jolla, CA, United States  
Thornton, George B., Ramona, CA, United States  
PA The Scripps Research Institute, La Jolla, CA, United States (U.S. corporation)  
PI US 6265549 B1 20010724  
AI US 1999-347877 19990706 (9)  
RLI Division of Ser. No. US 1996-748150, filed on 12 Nov 1996, now patented, Pat. No. US 5919754 Division of Ser. No. US 1994-232532, filed on 25 Apr 1994, now patented, Pat. No. US 5599790 Continuation-in-part of Ser. No. US 1993-139562, filed on 19 Oct 1993, now abandoned Continuation of Ser. No. US 1992-898117, filed on 11 Jun 1992, now abandoned  
DT Utility  
FS GRANTED  
EXNAM Primary Examiner: Chan, Christina Y.; Assistant Examiner: Clemens, Karen  
LREP Fitting, Thomas, Holmes, Emily  
CLMN Number of Claims: 2

ECL Exemplary Claim: 1  
DRWN 18 Drawing Figure(s); 13 Drawing Page(s)  
LN.CNT 3278

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention contemplates therapeutic compositions containing a fibrinogen homolog capable of binding to endothelial cells in an RGD-independent manner that inhibits fibrinogen binding to endothelial cells. Also described are therapeutic compositions containing an ICAM-1 homolog capable of binding to fibrinogen in an RGD-independent manner that inhibits fibrinogen binding to endothelial cells. Methods of inhibiting endothelial cell and fibrinogen mediated inflammation within a patient by administering a homolog of this invention are also contemplated.

L14 ANSWER 7 OF 19 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD DUPLICATE  
1

AN 2000-128304 [12] WPIDS

DNC C2000-039402

TI New **vaccine** for prevention of gram-negative bacterial infections and **endotoxin** related disorders, comprises complex of peptide and **LPS**.

DC B04 B05 D16

IN PORRO, M

PA (BIOS-N) BIOSYNTH SRL

CYC 26

PI EP 976402 A2 20000202 (200012)\* EN 43p

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
RO SE SI

CA 2279316 A1 20000129 (200028) EN

ADT EP 976402 A2 EP 1999-202476 19990727; CA 2279316 A1 CA 1999-2279316  
19990729

PRAI US 1998-124280 19980729

AB EP 976402 A UPAB: 20000308

NOVELTY - A **vaccine** for preventing gram negative infections and the effects of endotoxins is new and comprises a complex obtained by combining **LPS** free or in conjugate form with a sufficient amount of a peptide which is capable of producing a non-toxic, highly immunogenic complex.

DETAILED DESCRIPTION - A **vaccine** for preventing gram negative infections and the effects of endotoxins is new and comprises a complex obtained by combining **LPS** free or in conjugate form with a sufficient amount of a peptide which is capable of producing a non-toxic, highly immunogenic complex. The peptide is of the formula (a) - (c):

(a) (A)<sub>n</sub>;

(b) (AB)<sub>m</sub>; and/or

(c) (ABC)<sub>p</sub>.

A = a cationic amino acid e.g. Lysine or Arginine;

B = a hydrophobic amino acid e.g. Valine, Leucine, Isoleucine, Tyrosine, Phenylalanine and Tryptophan;

C = a hydrophobic amino acid e.g. Valine, Leucine, Isoleucine, Tyrosine, Phenylalanine and Tryptophan;

n = integer of 7-16;

m = integer of 4-20;

p = integer of 4-20.

An INDEPENDENT CLAIM is also included for a method for the preparation of a **vaccine** for prevention of gram-negative infections and the effects of endotoxins.

ACTIVITY - Antibacterial.

No relevant activity data given.

MECHANISM OF ACTION - The **excess peptide** significantly stabilizes the **LPS peptide** complex from the likely antagonistic activity of natural **LPS**-receptor proteins present on specialized cells of the immune system.

USE - The **vaccine** is useful for the prevention of bacterial infections caused by gram-negative bacteria and for the prevention of biological effects of homologous endotoxins, especially for preventing sepsis and septic shock.

ADVANTAGE - The toxic characteristic of **LPS** may be removed without eliminating the **antigenic** and immunogenic properties of **LPS** by binding the **LPS** (via the lipid A moiety) to a peptide.

Dwg.0/0

L14 ANSWER 8 OF 19 USPATFULL

AN 2000:37643 USPATFULL

TI Neurotactin and uses therefor

IN Pan, Yang, Brookline, MA, United States

PA Millenium BioTherapeutics, Inc., Cambridge, MA, United States (U.S. corporation)

PI US 6043086 20000328

AI US 1998-143470 19980828 (9)

RLI Continuation-in-part of Ser. No. US 1997-991426, filed on 16 Dec 1997 which is a continuation-in-part of Ser. No. US 1997-851160, filed on 5 May 1997 which is a continuation-in-part of Ser. No. US 1996-643798, filed on 7 May 1996

DT Utility

FS Granted

EXNAM Primary Examiner: Saunders, David; Assistant Examiner: VanderVegt, F. Pierre

LREP Fish & Richardson P.C.

CLMN Number of Claims: 4

ECL Exemplary Claim: 1

DRWN 13 Drawing Figure(s); 10 Drawing Page(s)

LN.CNT 3538

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to the identification and characterization of a novel, membrane-anchored chemokine, neurotactin. Sequence analysis of neurotactin reveals that, while it includes an amino terminal domain which resembles that of other chemokines, it has an overall structure which distinguishes it from all presently identified chemokines. Neurotactin is highly expressed in normal mammalian brain. Inhibitors of neurotactin expression or activity can be used to treat inflammation.

L14 ANSWER 9 OF 19 USPATFULL

AN 2000:4421 USPATFULL

TI Neurotactin and uses therefor

IN Pan, Yang, Brookline, MA, United States

PA Millennium BioTherapeutics, Inc., Cambridge, MA, United States (U.S. corporation)

PI US 6013257 20000111

AI US 1997-991426 19971216 (8)

RLI Continuation-in-part of Ser. No. US 1997-851160, filed on 5 May 1997 which is a continuation-in-part of Ser. No. US 1996-643798, filed on 7 May 1996

DT Utility

FS Granted

EXNAM Primary Examiner: Saunders, David; Assistant Examiner: VanderVegt, F. Pierre

LREP Fish & Richardson, P.C.

CLMN Number of Claims: 4

ECL Exemplary Claim: 1

DRWN 8 Drawing Figure(s); 8 Drawing Page(s)

LN.CNT 2498

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to a method for the treatment of multiple sclerosis comprising administering to a patient an antibody which binds to neurotactin. Neurotactin is a membrane-anchored chemokine which is

highly expressed in normal mammalian brain.

L14 ANSWER 10 OF 19 USPATFULL

AN 1999:75610 USPATFULL  
TI Method of inhibiting fibrinogen binding to endothelial cells with  
fibrinogen gamma chain peptides  
IN Altieri, Dario C., La Jolla, CA, United States  
Languino, Lucia R., La Jolla, CA, United States  
Thornton, George B., Ramona, CA, United States  
PA The Scripps Research Institute, La Jolla, CA, United States (U.S.  
corporation)  
PI US 5919754 19990706  
AI US 1996-748150 19961112 (8)  
RLI Division of Ser. No. US 1994-232532, filed on 25 Apr 1994, now patented,  
Pat. No. US 5599790 which is a continuation-in-part of Ser. No. US  
1993-139562, filed on 19 Oct 1993, now abandoned which is a continuation  
of Ser. No. US 1992-898117, filed on 12 Jun 1992, now abandoned  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Chan, Christina Y.; Assistant Examiner: Gambel,  
Phillip  
LREP Fitting, Thomas, Holmes, Emily  
CLMN Number of Claims: 4  
ECL Exemplary Claim: 1  
DRWN 18 Drawing Figure(s); 13 Drawing Page(s)  
LN.CNT 3365

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention contemplates therapeutic compositions containing a  
fibrinogen homolog capable of binding to endothelial cells in an  
RGD-independent manner that inhibits fibrinogen binding to endothelial  
cells. Also described are therapeutic compositions containing an ICAM-1  
homolog capable of binding to fibrinogen in an RGD-independent manner  
that inhibits fibrinogen binding to endothelial cells. Methods of  
inhibiting endothelial cell and fibrinogen mediated inflammation within  
a patient by administering a homolog of this invention are also  
contemplated.

L14 ANSWER 11 OF 19 USPATFULL

AN 1998:108016 USPATFULL  
TI Compositions comprising leukocyte-derived growth factors and methods of  
administering same to facilitate wound healing  
IN Grotendorst, Gary Robert, Lutz, FL, United States  
PA The University of South Florida, Tampa, FL, United States (U.S.  
corporation)  
PI US 5804176 19980908  
AI US 1995-416500 19950404 (8)  
RLI Continuation of Ser. No. US 1993-77312, filed on 14 Jun 1993, now  
abandoned which is a continuation of Ser. No. US 1990-472377, filed on 1  
Feb 1990, now abandoned  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Kemmerer, Elizabeth C.  
LREP DeConti, Jr., Giulio A., Hanley, Elizabeth A. Lahive & Cockfield  
CLMN Number of Claims: 13  
ECL Exemplary Claim: 1  
DRWN 9 Drawing Figure(s); 9 Drawing Page(s)  
LN.CNT 1396

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A gene encoding a leukocyte-derived growth factor (LDGF) has been  
isolated, cloned and sequenced. LDGF is believed to correspond to a  
PDGF-like monocyte-derived growth factor with chemotactic activity which  
is found in human wound fluid. Protease-resistant and other analogues of  
LDGF, as well as recombinant LDGF of native amino acid sequence, may now  
be produced by gene expression in transformed hosts.

L14 ANSWER 12 OF 19 USPATFULL  
 AN 1998:25211 USPATFULL  
 TI Cytokine regulatory agents and methods of use in pathologies and conditions associated with altered cytokine levels  
 IN Girtten, Beverly E., San Diego, CA, United States  
 Andalibi, Ali, San Diego, CA, United States  
 Basu, Amaresh, San Diego, CA, United States  
 Fagan, Patrick, Escondido, CA, United States  
 Houghten, Richard A., Del Mar, CA, United States  
 Loullis, Costas C., Cardiff, CA, United States  
 Omholt, Paul, San Diego, CA, United States  
 Tuttle, Ronald R., Escondido, CA, United States  
 Suto, Mark J., San Diego, CA, United States  
 Weber, Patricia A., Stevensville, MT, United States  
 PA Trega Biosciences, Inc., San Diego, CA, United States (U.S. corporation)  
 PI US 5726156 19980310  
 AI US 1995-527056 19950912 (8)  
 RLI Continuation-in-part of Ser. No. US 1995-484262, filed on 7 Jun 1995, now abandoned which is a continuation-in-part of Ser. No. US 1995-400983, filed on 6 Mar 1995  
 DT Utility  
 FS Granted  
 EXNAM Primary Examiner: Tsang, Cecilia J.; Assistant Examiner: Delacroix-Muirheid, C.  
 LREP Campbell & Flores LLP  
 CLMN Number of Claims: 31  
 ECL Exemplary Claim: 1  
 DRWN 6 Drawing Figure(s); 4 Drawing Page(s)  
 LN.CNT 1873

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to novel peptides that are potent cytokine regulatory agents. In addition, the present invention relates to pharmaceutical compositions comprising a pharmaceutically acceptable carrier and a cytokine regulatory agent. Administration of such a cytokine regulatory agent to a subject can enhance or restrain cytokine activity. Thus, the present invention provides a method of regulating cytokine activity in a subject having a condition characterized by aberrant or altered cytokine activity. The invention also provides methods of treating such conditions, including, for example, disuse deconditioning, diseases mediated by nitric oxide and cytokines, adverse drug reactions, obesity, septic shock, and adverse side effects due to cancer chemotherapy or occurring as in response to organ transplantation.

L14 ANSWER 13 OF 19 USPATFULL  
 AN 97:51847 USPATFULL  
 TI Method for determining TNF  
 IN Kriegler, Michael, San Francisco, CA, United States  
 Nitecki, Danute E., Berkeley, CA, United States  
 PA Cetus Oncology Corporation, Emeryville, CA, United States (U.S. corporation)  
 PI US 5639593 19970617  
 AI US 1996-649197 19960517 (8)  
 RLI Continuation of Ser. No. US 1995-385434, filed on 8 Feb 1995, now patented, Pat. No. US 5545518 which is a continuation of Ser. No. US 1993-53558, filed on 26 Apr 1993, now patented, Pat. No. US 5422425 which is a continuation of Ser. No. US 1990-562720, filed on 6 Aug 1990, now abandoned  
 DT Utility  
 FS Granted  
 EXNAM Primary Examiner: Fleisher, Mindy; Assistant Examiner: Degen, Nancy J.  
 LREP Pochopien, Donald J., Savereide, Paul B., Blackburn, Robert P.  
 CLMN Number of Claims: 5

ECL Exemplary Claim: 1  
DRWN 4 Drawing Figure(s); 3 Drawing Page(s)  
LN.CNT 856

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compositions and methods are described for identifying inhibitors of mature protein hormone formation from a prohormone, and prophylactic and therapeutic uses of the inhibitors for treating diseases associated with elevated levels of the mature hormones, particularly sepsis, AIDS and autoimmune diseases.

L14 ANSWER 14 OF 19 USPATFULL

AN 97:10016 USPATFULL

TI Fibrinogen .gamma. chain polypeptide and compositions thereof

IN Altieri, Dario C., La Jolla, CA, United States

Languino, Lucia R., La Jolla, CA, United States

Thornton, George B., Ramona, CA, United States

PA The Scripps Research Institute, La Jolla, CA, United States (U.S. corporation)

PI US 5599790 19970204

AI US 1994-232532 19940425 (8)

RLI Continuation-in-part of Ser. No. US 1993-139562, filed on 19 Oct 1993, now abandoned which is a continuation of Ser. No. US 1992-898117, filed on 11 Jun 1992, now abandoned

DT Utility

FS Granted

EXNAM Primary Examiner: Chan, Christina Y.; Assistant Examiner: Gambel, Phillip

LREP Fitting, Thomas

CLMN Number of Claims: 4

ECL Exemplary Claim: 1

DRWN 18 Drawing Figure(s); 13 Drawing Page(s)

LN.CNT 3338

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention contemplates therapeutic compositions containing a fibrinogen homolog capable of binding to endothelial cells in an RGD-independent manner that inhibits fibrinogen binding to endothelial cells. Also described are therapeutic compositions containing an ICAM-1 homolog capable of binding to fibrinogen in an RGD-independent manner that inhibits fibrinogen binding to endothelial cells. Methods of inhibiting endothelial cell and fibrinogen mediated inflammation within a patient by administering a homolog of this invention are also contemplated.

L14 ANSWER 15 OF 19 USPATFULL

AN 96:72766 USPATFULL

TI Assay for determining TNF or IL-1 convertase activity

IN Kriegler, Michael, San Francisco, CA, United States

Nitecki, Danute E., Berkeley, CA, United States

PA Cetus Oncology Corporation, Emeryville, CA, United States (U.S. corporation)

PI US 5545518 19960813

AI US 1995-385434 19950208 (8)

RLI Division of Ser. No. US 1993-53558, filed on 26 Apr 1993, now patented, Pat. No. US 5422425 which is a continuation of Ser. No. US 1990-562720, filed on 6 Aug 1990, now abandoned

DT Utility

FS Granted

EXNAM Primary Examiner: Fleisher, Mindy; Assistant Examiner: Degen, Nancy J.

LREP Pochopien, Donald J., Savereide, Paul B., Blackburn, Robert P.

CLMN Number of Claims: 12

ECL Exemplary Claim: 1

DRWN 5 Drawing Figure(s); 3 Drawing Page(s)

LN.CNT 824

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compositions and methods are described for identifying inhibitors of mature protein hormone formation from a prohormone, and prophylactic and therapeutic uses of the inhibitors for treating diseases associated with elevated levels of the mature hormones, particularly sepsis, and autoimmune diseases.

L14 ANSWER 16 OF 19 USPATFULL

AN 95:50249 USPATFULL

TI Methods for the identification of cytokine convertase inhibitors

IN Kriegler, Michael, San Francisco, CA, United States

Nitecki, Danute E., Berkeley, CA, United States

PA Cetus Oncology Corporation, Emeryville, CA, United States (U.S. corporation)

PI US 5422425 19950606

AI US 1993-53558 19930426 (8)

RLI Continuation of Ser. No. US 1990-562720, filed on 6 Aug 1990, now abandoned

DT Utility

FS Granted

EXNAM Primary Examiner: Russel, Jeffrey E.

LREP Pochopien, Donald J., Savereide, Paul B., Blackburn, Robert P.

CLMN Number of Claims: 2

ECL Exemplary Claim: 1

DRWN 5 Drawing Figure(s); 3 Drawing Page(s)

LN.CNT 696

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compositions and methods are described for identifying inhibitors of mature protein hormone formation from a prohormone, and prophylactic and therapeutic uses of the inhibitors for treating diseases associated with elevated levels of the mature hormones, particularly sepsis, and autoimmune diseases.

L14 ANSWER 17 OF 19 USPATFULL

AN 93:69768 USPATFULL

TI Nucleic Acids Encoding proteins which induce immunological effector cell activation and chemattraction, vectors, and recombinant cells

IN Cantor, Harvey I., Wellesley, MA, United States

Patarca, Roberto, Brookline, MA, United States

Schwartz, Joel L., Newton Centre, MA, United States

Freeman, Gordon, Brookline, MA, United States

PA Dana Farber Cancer Institute, Boston, MA, United States (U.S. corporation)

PI US 5238839 19930824

AI US 1991-732185 19910718 (7)

RLI Division of Ser. No. US 1988-153887, filed on 9 Feb 1988, now patented, Pat. No. US 5049659, issued on 17 Sep 1991

DT Utility

FS Granted

EXNAM Primary Examiner: Ossanna, Nina

LREP Pennie & Edmonds

CLMN Number of Claims: 25

ECL Exemplary Claim: 1

DRWN 25 Drawing Figure(s); 24 Drawing Page(s)

LN.CNT 2524

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to genes and their encoded proteins which induce immunological effector cell activation and chemattraction. The proteins of the invention attract subsets of immunological effector cells and stimulate them to express their specialized effector cell functions. Such proteins, termed Ap-1 proteins, are expressed by lymphoid cells, and bind to effector cells such as macrophages and mast cells. In particular, the Ap

Pursuant to the provisions of 35 U.S.C. .sctn.202(c), it is hereby

acknowledged that the Government has certain rights in this invention, which was made in part with funds from the National Institutes of Health.

L14 ANSWER 18 OF 19 USPATFULL

AN 93:22623 USPATFULL  
TI Recombinant vectors for Haemophilus influenzae peptides and proteins  
IN Anilionis, Algis, Pittsford, NY, United States  
Seid, Jr., Robert C., San Francisco, CA, United States  
Deich, Robert A., Rochester, NY, United States  
Zlotnick, Gary W., Penfield, NY, United States  
Green, Bruce A., Pittsford, NY, United States  
PA Praxis Biologics, Inc., Rochester, NY, United States (U.S. corporation)  
PI US 5196338 19930323  
AI US 1990-480396 19900215 (7)  
RLI Division of Ser. No. US 1989-396572, filed on 21 Aug 1989, now abandoned which is a continuation-in-part of Ser. No. US 1988-239572, filed on 1 Sep 1988, now patented, Pat. No. US 5098997 which is a continuation-in-part of Ser. No. US 1987-132073, filed on 11 Dec 1987, now abandoned which is a continuation-in-part of Ser. No. US 1987-20849, filed on 2 Mar 1987, now abandoned which is a continuation-in-part of Ser. No. US 1986-948364, filed on 31 Dec 1986, now abandoned  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Lacey, David L.; Assistant Examiner: Ulm, John D.  
LREP Gordon, Alan M., Baldwin, Geraldine F.  
CLMN Number of Claims: 19  
ECL Exemplary Claim: 1  
DRWN 38 Drawing Figure(s); 33 Drawing Page(s)  
LN.CNT 3534

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Peptides and proteins related to an epitope comprising an outer membrane protein of Haemophilus influenzae are described. The peptides and proteins can be prepared by methods including novel and improved methods of purification from H. influenzae cultures, and by recombinant DNA and chemical synthetic techniques. Additionally, recombinant vectors containing nucleotide sequences encoding PBOMP-1 and PBOMP-2 related peptides, proteins and fusion proteins are also described. Recombinant vectors include plasmid DNA and viral DNA such as human viruses, animal viruses, insect viruses and bacteriophages that direct the expression of the PBOMP-1 and PBOMP-2 related peptides, proteins, and fusion proteins in appropriate host cells. The peptides, proteins, fusion proteins and viruses both "live" and "inactivated" are used as immunogens in **vaccine** formulations to protect against H. influenzae infections. The peptides, proteins and fusion proteins are also used as reagents in immunoassays as well as to prepare immunoglobulins for passive immunization. Use of the nucleotide sequences encoding the PBOMP related peptides, proteins and fusion proteins in hybridization assays is also described.

L14 ANSWER 19 OF 19 USPATFULL

AN 91:75806 USPATFULL  
TI Proteins which induce immunological effector cell activation and chemattraction  
IN Cantor, Harvey I., Wellesley, MA, United States  
Patarca, Roberto M., Brookline, MA, United States  
Schwartz, Joel L., Newton Centre, MA, United States  
PA Dana Farber Cancer Institute, Boston, MA, United States (U.S. corporation)  
PI US 5049659 19910917  
AI US 1988-153887 19880209 (7)  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Moskowitz, Margaret; Assistant Examiner: Ossanna, Nina



LREP Pennie & Edmonds  
CLMN Number of Claims: 25  
ECL Exemplary Claim: 1  
DRWN 14 Drawing Figure(s); 24 Drawing Page(s)  
LN.CNT 2392

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to genes and their encoded proteins which induce immunological effector cell activation and chemattraction. The proteins of the invention attract subsets of immunological effector cells and stimulate them to express their specialized effector cell functions. Such proteins, termed Ap-1 proteins, are expressed by lymphoid cells, and bind to effector cells such as macrophages and mast cells. In particular, the Ap-1 proteins induce macrophage phagocytosis, expression of class II major histocompatibility molecules, cytotoxicity, and migration, and induce hematopoietic progenitor cell differentiation. The Ap-1 molecules can be of value in the therapy or diagnosis of inflammatory or immune disorders, or neoplasia.

=> d clm 18

L14 ANSWER 18 OF 19 USPATFULL

CLM What is claimed is:

1. A recombinant vector comprising a DNA sequence coding for an **antigenic** determinant of an Haemophilus influenzae fusion protein having an amino acid sequence comprising (a) the amino acid sequence as depicted in FIG. 11 from amino acid residue 20 to 153 of an Haemophilus influenzae PBOMP-1 protein and (b) the amino acid sequence as depicted in FIG. 15 from amino acid residue 19 to 154 of an Haemophilus influenzae PBOMP-2 protein.
2. The recombinant vector according to claim 1 in which the vector is pPX183 or a mutant, recombinant or genetically engineered derivative thereof.
3. The recombinant vector according to claim 1, in which the vector is pPX199 or a mutant, recombinant or genetically engineered derivative thereof.
4. The recombinant vector according to claim 1, in which the vector is pPX512 or a mutant, recombinant or genetically engineered derivative thereof.
5. A bacterium containing the recombinant vector of claim 1, comprising an Escherichia coli bacterium deposited with the NRRL and assigned the accession No. B-18377.
6. A bacterium containing the recombinant vector of claim 1, comprising an Escherichia coli bacterium deposited with the NRRL and assigned the accession No. B-18530.
7. A bacterium containing the recombinant vector of claim 1, comprising an Escherichia coli bacterium deposited with the NRRL and assigned the accession No. B-18531.
8. A recombinant vector, comprising a DNA sequence coding for an **antigenic** determinant of an Haemophilus influenzae outer membrane protein having the amino acid sequence as depicted in FIG. 11 from amino acid residue 20 to 153 of an Haemophilus influenzae PBOMP-1 protein.
9. A recombinant vector, comprising a DNA sequence coding for an **antigenic** determinant of an Haemophilus influenzae outer membrane protein having the amino acid sequence as depicted in FIG. 15

from amino acid residue 19 to 154 of an Haemophilus influenzae PBOMP-2 protein.

10. The recombinant vector according to claim 8, in which the vector is pAA152 or a mutant, recombinant or genetically engineered derivative thereof.

11. The recombinant vector according to claim 8, in which the vector is pPX167 or a mutant, recombinant or genetically engineered derivative thereof.

12. The recombinant vector according to claim 8, in which the vector is pPX168 or a mutant, recombinant or genetically engineered derivative thereof.

13. The recombinant vector according to claim 9, in which the vector is pAA130 or a mutant, recombinant or genetically engineered derivative thereof.

14. The recombinant vector according to claim 9, in which the vector is pPX163 or a mutant, recombinant or genetically engineered derivative thereof.

15. A bacterium containing the recombinant vector of claim 8, comprising an Escherichia coli bacterium deposited with the NRRL and assigned accession No. B-18155.

16. A bacterium containing the recombinant vector of claim 8, comprising an Escherichia coli bacterium deposited with the NRRL and assigned accession No. B-18286.

17. A bacterium containing the recombinant vector of claim 8, comprising an Escherichia coli bacterium deposited with the NRRL and assigned accession No. B-18287.

18. A bacterium containing the recombinant vector of claim 9, comprising an Escherichia coli bacterium deposited with the NRRL and assigned accession No. B-18154.

19. A bacterium containing the recombinant vector of claim 9, comprising an Escherichia coli bacterium deposited with the NRRL and assigned accession No. B-18285.

=> d his

(FILE 'HOME' ENTERED AT 14:46:23 ON 15 APR 2002)

FILE 'BIOSIS, MEDLINE, AGRICOLA, EMBASE, CABA, WPIDS, JAPIO, BIOTECHDS, LIFESCI, CAPLUS, USPATFULL, USPAT2' ENTERED AT 14:50:42 ON 15 APR 2002

E PORRO MASSIMO/AU

L1	41 S E3
	E PORRO M/AU
L2	116 S E3-E4
L3	157 S L1-L2
L4	26 S L3 AND BACTERI? (10A) VACCIN?
L5	8 S L4 AND LPS
L6	6 DUP REM L5 (2 DUPLICATES REMOVED)
L7	34 S L3 AND LPS
L8	25 S L7 AND (VACCIN? OR ANTIGEN?)
L9	18 S L8 AND GRAM-NEGATIVE
L10	10 DUP REM L9 (8 DUPLICATES REMOVED)
L11	27290 S LPS AND (VACCIN? OR ANTIGEN?)

L12 3242 S L11 AND ENDOTOXIN  
L13 20 S L12 AND EXCESS (5A) PEPTID?  
L14 19 DUP REM L13 (1 DUPLICATE REMOVED)

=> s l11 and excess (5a) peptid?  
L15 57 L11 AND EXCESS (5A) PEPTID?

=> dup rem l14  
PROCESSING COMPLETED FOR L14  
L16 19 DUP REM L14 (0 DUPLICATES REMOVED)

=> dup rem l15  
PROCESSING COMPLETED FOR L15  
L17 54 DUP REM L15 (3 DUPLICATES REMOVED)

=> s l17 and (combin? or multicomponent)  
11 FILES SEARCHED...  
L18 50 L17 AND (COMBIN? OR MULTICOMPONENT)

=> s l18 and gram (5a) negative  
L19 13 L18 AND GRAM (5A) NEGATIVE

=> d bib ab 1-13

L19 ANSWER 1 OF 13 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD  
AN 2000-128304 [12] WPIDS  
DNC C2000-039402  
TI New **vaccine** for prevention of **gram-negative**  
bacterial infections and endotoxin related disorders, comprises complex of  
peptide and **LPS**.  
DC B04 B05 D16  
IN PORRO, M  
PA (BIOS-N) BIOSYNTH SRL  
CYC 26  
PI EP 976402 A2 20000202 (200012)\* EN 43p  
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
RO SE SI  
CA 2279316 A1 20000129 (200028) EN  
ADT EP 976402 A2 EP 1999-202476 19990727; CA 2279316 A1 CA 1999-2279316  
19990729  
PRAI US 1998-124280 19980729  
AB EP 976402 A UPAB: 20000308  
NOVELTY - A **vaccine** for preventing **gram**  
**negative** infections and the effects of endotoxins is new and  
comprises a complex obtained by **combining LPS** free or  
in conjugate form with a sufficient amount of a peptide which is capable  
of producing a non-toxic, highly immunogenic complex.  
DETAILED DESCRIPTION - A **vaccine** for preventing  
**gram negative** infections and the effects of endotoxins  
is new and comprises a complex obtained by **combining LPS**  
free or in conjugate form with a sufficient amount of a peptide which is  
capable of producing a non-toxic, highly immunogenic complex. The peptide  
is of the formula (a) - (c):  
(a) (A)n;  
(b) (AB)m; and/or  
(c) (ABC)p.  
A = a cationic amino acid e.g. Lysine or Arginine;  
B = a hydrophobic amino acid e.g. Valine, Leucine, Isoleucine,  
Tyrosine, Phenylalanine and Tryptophan;  
C = a hydrophobic amino acid e.g. Valine, Leucine, Isoleucine,  
Tyrosine, Phenylalanine and Tryptophan;  
n = integer of 7-16;  
m = integer of 4-20;  
p = integer of 4-20.

An INDEPENDENT CLAIM is also included for a method for the preparation of a **vaccine** for prevention of **gram-negative** infections and the effects of endotoxins.

ACTIVITY - Antibacterial.

No relevant activity data given.

MECHANISM OF ACTION - The **excess peptide** significantly stabilizes the **LPS peptide** complex from the likely antagonistic activity of natural **LPS**-receptor proteins present on specialized cells of the immune system.

USE - The **vaccine** is useful for the prevention of bacterial infections caused by **gram-negative** bacteria and for the prevention of biological effects of homologous endotoxins, especially for preventing sepsis and septic shock.

ADVANTAGE - The toxic characteristic of **LPS** may be removed without eliminating the **antigenic** and immunogenic properties of **LPS** by binding the **LPS** (via the lipid A moiety) to a peptide.

Dwg.0/0

L19 ANSWER 2 OF 13 USPATFULL

AN 2002:60940 USPATFULL

TI Treatment or prophylaxis of diseases caused by pilus-forming bacteria

IN Hultgren, Scott, Ballwin, MO, UNITED STATES

Kuehn, Meta, Berkeley, CA, UNITED STATES

Xu, Zheng, Blue Bell, PA, UNITED STATES

Ogg, Derek, Stockholm, SWEDEN

Harris, Mark, Uppsala, SWEDEN

Lepisto, Matti, Lund, SWEDEN

Jones, Charles Hal, Saint Louis, MO, UNITED STATES

Kihlberg, Jan, Dalby, SWEDEN

PI US 2002034774 A1 20020321

AI US 2001-799576 A1 20010307 (9)

RLI Division of Ser. No. US 1996-640877, filed on 10 Oct 1996, PENDING

Division of Ser. No. WO 1994-US13455, filed on 18 Nov 1994, UNKNOWN

Continuation-in-part of Ser. No. US 1993-154035, filed on 18 Nov 1993, ABANDONED

DT Utility

FS APPLICATION

LREP Teresa Stanek Rea, Esq., BURNS, DOANE, SWECKER & MATHIS, L.L.P., P.O. Box 1404, Alexandria, VA, 22313-1404

CLMN Number of Claims: 37

ECL Exemplary Claim: 1

DRWN 25 Drawing Page(s)

LN.CNT 5543

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Novel methods for the treatment and/or prophylaxis of diseases caused by tissue-adhering bacteria are disclosed. By interacting with periplasmic molecular chaperones it is achieved that the assembly of pili is prevented or inhibited and thereby the infectivity of the bacteria is diminished. Also disclosed are methods for screening for drugs as well as methods for the de novo design of such drugs, methods which rely on novel computer drug modelling methods involving an approximative calculation of binding free energy between macromolecules. Finally, novel pyranosides which are believed to be capable of interacting with periplasmic molecular chaperones are also disclosed.

L19 ANSWER 3 OF 13 USPATFULL

AN 2002:60686 USPATFULL

TI **VACCINE FOR PREVENTION OF GRAM-NEGATIVE**

**BACTERIAL INFECTIONS AND ENDOTOXIN RELATED DISEASES**

IN PORRO, MASSIMO, SIENA, ITALY

PI US 2002034520 A1 20020321

AI US 1998-124280 A1 19980729 (9)

DT Utility

FS APPLICATION  
LREP JAMES V COSTIGAN, HEDMAN GIBSON & COSTIGAN, 1185 AVENUE OF THE AMERICAS,  
NEW YORK, NY, 100362601  
CLMN Number of Claims: 53  
ECL Exemplary Claim: 1  
DRWN 10 Drawing Page(s)  
LN.CNT 1029

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A **vaccine** is disclosed which is useful for protecting a host from **Gram negative** infections and the effects of endotoxin, therefore preventing sepsis and septic shock. The **vaccine** is prepared by **combining LPS** free or in conjugate form with a stoichiometric **excess** of a **peptide** of the formula:

(a) (A).sub.n wherein A is Lysine or Arginine and n is an integer with a minimum value of 7;

(b) (AB).sub.m wherein A is Lysine or Arginine and B is a hydrophobic amino acid selected from the group consisting of Valine, Leucine, Isoleucine, Tyrosine, Phenylalanine and Tryptophan; m is an integer with a minimum value of 3; and

(c) (ABC).sub.p wherein A is a cationic amino acid which is Lysine or Arginine; B and C are hydrophobic amino acids which may be the same or different and are selected from the group consisting of Valine, Leucine, Isoleucine, Tyrosine, Phenylalanine and Tryptophan; p is an integer with a minimum value of 2.

L19 ANSWER 4 OF 13 USPATFULL

AN 2002:13790 USPATFULL

TI Superantigen based methods and compositions for treatment of diseases

IN Terman, David Stephen, 3183 Palmero Way, Pebble Beach, CA, United States 93953

PI US 6340461 B1 20020122

AI US 1997-992877 19971217 (8)

PRAI US 1996-33172P 19961217 (60)

US 1997-44074P 19970417 (60)

DT Utility

FS GRANTED

EXNAM Primary Examiner: Bansal, Geetha P.

LREP Venable, Livnat, Shmuel

CLMN Number of Claims: 7

ECL Exemplary Claim: 1,6

DRWN 8 Drawing Figure(s); 8 Drawing Page(s)

LN.CNT 5893

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to therapeutic methods and compositions employing superantigens. Methods and compositions employing superantigens and immunotherapeutic proteins in **combination** with one another have been found to provide more effective treatment than either component used alone. Superantigens, in conjunction with one or more additional immunotherapeutic **antigens**, may be used to either induce a therapeutic immune response directed against a target or to inhibit a disease causing immune response. Specific **combinations** of superantigens and immunotherapeutic **antigens** are used to treat specific diseases. The induction (or augmentation) of a desired immune against a target may be used, for example, to kill cancer cells or kill the cells or an infectious agent. The inhibition of an immune response, e.g., through the induction of T cell anergy, may be used to reduce the symptoms of an autoimmune disease. Diseases that may be treated by the methods and compositions of the invention include neoplastic diseases, infectious diseases, and autoimmune diseases. One aspect of the invention is to provide methods

for the treatment of diseases comprising the steps of administering an effective amount of a superantigen and an immunotherapeutic so as to have the desired therapeutic effect. The superantigen and immunotherapeutic **antigen** may be administered together as a mixture. Alternatively, the superantigen and immunotherapeutic **antigen** may be administered separately. In one embodiment of the invention, the superantigen and immunotherapeutic **antigen** are administered to the patient in the form of a immunotherapeutic **antigen**-superantigen polymer of the invention. Another aspect of the invention is to provide methods for the treatment of diseases comprising the steps of incubating a lymphocyte population ex vivo a superantigen and an immunotherapeutic protein so as to either activate or anergize T cells within the selected population.

L19 ANSWER 5 OF 13 USPATFULL  
AN 2001:157809 USPATFULL  
TI Adjuvant compositions comprising a mineral salt and another immunostimulating compound  
IN Kandil, Ali, Willowdale, Canada  
James, Olive A., Toronto, Canada  
Chong, Pele, Richmond Hill, Canada  
Klein, Michel H., Willowdale, Canada  
PA Aventis Pasteur Limited, Toronto, Canada (non-U.S. corporation)  
PI US 6290971 B1 20010918  
WO 9534308 19951221  
AI US 1997-750624 19970226 (8)  
WO 1995-CA359 19950615  
19970226 PCT 371 date  
19970226 PCT 102(e) date  
DT Utility  
FS GRANTED  
EXNAM Primary Examiner: Minnifield, Nita  
LREP Stewart, Michael I. Sim & McBurney  
CLMN Number of Claims: 2  
ECL Exemplary Claim: 1  
DRWN 9 Drawing Figure(s); 9 Drawing Page(s)  
LN.CNT 1133  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
AB Adjuvant compositions for modulating an immune response to an **antigen** administered to a host comprise a mineral salt adjuvant and at least one other adjuvant. The compositions provide an adjuvanting effect on an **antigen** which is greater than the adjuvanting effect attainable by one of the adjuvants alone. An **antigen** is covalently bonded to a glycolipid analog to provide a discrete molecule which exhibits an enhanced adjuvanting effect on the **antigen** which is greater than the adjuvanting effect attainable in the absence of such covalent bonding.

L19 ANSWER 6 OF 13 USPATFULL  
AN 2000:160793 USPATFULL  
TI Treatment or prophylaxis of diseases caused by pilus-forming bacteria  
IN Hultgren, Scott, Ballwin, MO, United States  
Kuehn, Meta, Berkeley, CA, United States  
Xu, Zheng, Blue Bell, PA, United States  
Ogg, Derek, Uppsala, Sweden  
Harris, Mark, Uppsala, Sweden  
Lepisto, Matti, Lund, Sweden  
Kihlberg, Jan, Dalby, Sweden  
Jones, Charles Hal, St. Louis, MO, United States  
PA SIGA Pharmaceuticals, Inc., New York, NY, United States (U.S. corporation)  
Washington University, St. Louis, MO, United States (U.S. corporation)  
PI US 6153396 20001128  
AI US 1995-465275 19950605 (8)

RLI Division of Ser. No. WO 1994-US13455, filed on 18 Nov 1994 which is a continuation-in-part of Ser. No. US 1993-154035, filed on 18 Nov 1993, now abandoned

DT Utility

FS Granted

EXNAM Primary Examiner: Swartz, Rodney P.

LREP Burns, Doane, Swecker & Mathis, L.L.P.

CLMN Number of Claims: 10

ECL Exemplary Claim: 1

DRWN 29 Drawing Figure(s); 24 Drawing Page(s)

LN.CNT 5410

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Novel methods for the treatment and/or prophylaxis of diseases caused by tissue-adhering bacteria are disclosed. By interacting with periplasmic molecular chaperones it is achieved that the assembly of pili is prevented or inhibited and thereby the infectivity of the bacteria is diminished. Also disclosed are methods for screening for drugs as well as methods for the de novo design of such drugs, methods which rely on novel computer drug modelling methods involving an approximative calculation of binding free energy between macromolecules. Finally, novel pyranosides which are believed to be capable of interacting with periplasmic molecular chaperones are also disclosed.

L19 ANSWER 7 OF 13 USPATFULL

AN 2000:149718 USPATFULL

TI Methods of promoting immunopotential and preparing antibodies with anti-CD3 antibodies

IN Bluestone, Jeffery A., Chicago, IL, United States

PA Arch Development Corporation, Chicago, IL, United States (U.S. corporation)

PI US 6143297 20001107

AI US 1995-458462 19950602 (8)

RLI Division of Ser. No. US 1994-286805, filed on 5 Aug 1994 And a continuation of Ser. No. US 1992-990553, filed on 14 Dec 1992, now abandoned which is a continuation of Ser. No. US 1990-524304, filed on 16 May 1990, now abandoned which is a continuation of Ser. No. US 1989-429729, filed on 27 Oct 1989, now abandoned

DT Utility

FS Granted

EXNAM Primary Examiner: Chan, Christina Y.; Assistant Examiner: Gambel, Phillip

LREP Fulbright & Jaworski

CLMN Number of Claims: 27

ECL Exemplary Claim: 1

DRWN 18 Drawing Figure(s); 15 Drawing Page(s)

LN.CNT 3008

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed are immunopotentiating agents, and **vaccines** thereof, which enhance and/or otherwise modify immune responses, and method for their preparation and use in vivo. Immunopotentiating agents can be single agents that act directly, adjuvants added concurrently with the agents, or heteroconjugates wherein the immunopotentiating agent is chemically coupled to the compound against which an immune response is desired. Examples of immunopotentiating agents include monoclonal antibodies, such as anti-CD3, anti-CD2) and anti-CD5 antibodies, and proteins derived from microorganisms (e.g., enterotoxins) which activate T cells. The compounds against which an immune response can be generated, which may be the second component in a heteroconjugate, include compound from abnormal or diseased tissues such as tumors, or infectious agents, such as viruses, bacteria, fungi, protozoal or metazoal parasites, and can be obtained by natural or recombinant means. Methods of using the invention to prepare monoclonal antibodies are particularly disclosed.

L19 ANSWER 8 OF 13 USPATFULL

AN 2000:117282 USPATFULL

TI Methods of stimulating or enhancing the immune system with anti-CD3 antibodies

IN Bluestone, Jeffery A., Chicago, IL, United States

PA Arch Development Corporation, Chicago, IL, United States (U.S. corporation)

PI US 6113901 20000905

AI US 1994-286805 19940805 (8)

RLI Continuation of Ser. No. US 1992-990553, filed on 14 Dec 1992, now abandoned which is a continuation of Ser. No. US 1990-524304, filed on 16 May 1990, now abandoned which is a continuation-in-part of Ser. No. US 1989-429729, filed on 27 Oct 1989, now abandoned

DT Utility

FS Granted

EXNAM Primary Examiner: Chan, Christina Y.; Assistant Examiner: Gambel, Phillip

LREP Arnold White & Durkee

CLMN Number of Claims: 17

ECL Exemplary Claim: 1

DRWN 18 Drawing Figure(s); 15 Drawing Page(s)

LN.CNT 2944

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed are immunopotentiating agents, and **vaccines** thereof, which enhance and/or otherwise modify immune responses, and methods for their preparation and use in vivo. Immunopotentiating agents can be single agents that act directly, adjuvants added concurrently with the agents, or preferably, heteroconjugates wherein the immunopotentiating agent is chemically coupled to the compound against which an immune response is desired. Examples of immunopotentiating agents include monoclonal antibodies and proteins derived from microorganisms (e.g., enterotoxins) which activate T cells. The compounds against which an immune response can be generated, which may be the second component in a heteroconjugate, include compounds from abnormal or diseased tissues such as tumors, or infectious agents, such as viruses, bacteria, fungi, protozoal or metazoal parasites, and can be obtained by natural or recombinant means. Also disclosed is the use of monoclonal antibodies such as anti-CD3 antibodies or T cells, prepared from mammals whose immune systems have responded to administration of a heteroconjugate, in the induction of passive immunity.

L19 ANSWER 9 OF 13 USPATFULL

AN 1999:163678 USPATFULL

TI Treatment or prophylaxis of diseases caused by pilus-forming bacteria

IN Hultgren, Scott, 1637 Country Hill La., Ballwin, MO, United States

Kuehn, Meta, 7351 Claremont Ave., #2, Berkeley, CA, United States 94705

Xu, Zheng, 887 Village Cir., Blue Bell, PA, United States 19422

Ogg, Derek, Artillerigatan 16B, S-752 37, Uppsala, Sweden

Harris, Mark, Norbykallvagen 2, S-756 45 Uppsala, Sweden

Lepisto, Matti, Flygelvaagen 257, S-224 73 Lund, Sweden

Kihlberg, Jan, Havrevagen 16, S-240 10 Dalby, Sweden

Jones, Charles Hal, 1104 Moorlands Dr., St. Louis, MO, United States 63110

PI US 6001823 19991214

AI US 1995-462436 19950605 (8)

RLI Division of Ser. No. WO 1994-US13455, filed on 18 Nov 1994 which is a continuation-in-part of Ser. No. US 1993-154035, filed on 18 Nov 1993, now abandoned

DT Utility

FS Granted

EXNAM Primary Examiner: Raymond, Richard L.

LREP Burns, Doane, Swecker & Mathis, L.L.P.

CLMN Number of Claims: 5

ECL Exemplary Claim: 1



DRWN 34 Drawing Figure(s); 24 Drawing Page(s)

LN.CNT 5409

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Novel methods for the treatment and/or prophylaxis of diseases caused by tissue-adhering bacteria are disclosed. By interacting with periplasmic molecular chaperones it is achieved that the assembly of pili is prevented or inhibited and thereby the infectivity of the bacteria is diminished. Also disclosed are methods for screening for drugs as well as methods for the de novo design of such drugs, methods which rely on novel computer drug modelling methods involving an approximative calculation of binding free energy between macromolecules. Finally, novel pyranosides which are believed to be capable of interacting with periplasmic molecular chaperones are also disclosed.

L19 ANSWER 10 OF 13 USPATFULL

AN 1998:143660 USPATFULL

TI Adjuvant compositions

IN Kandil, Ali, Willowdale, Canada  
James, Olive A., Toronto, Canada  
Klein, Michel H., Willowdale, Canada  
Chong, Pele, Richmond Hill, Canada

PA Connaught Laboratories Limited, North York, Canada (non-U.S. corporation)

PI US 5837250 19981117

AI US 1995-483856 19950607 (8)

RLI Continuation of Ser. No. US 1994-261194, filed on 16 Jun 1994

DT Utility

FS Granted

EXNAM Primary Examiner: Achutamurthy, Ponnathapura; Assistant Examiner: Bui, Phuong T.

LREP Sim & McBurney

CLMN Number of Claims: 10

ECL Exemplary Claim: 1

DRWN 9 Drawing Figure(s); 9 Drawing Page(s)

LN.CNT 1150

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Adjuvant compositions for modulating an immune response to an **antigen** administered to a host comprise a mineral salt adjuvant and at least one other adjuvant. The compositions provide an adjuvanting effect on an **antigen** which is greater than the adjuvanting effect attainable by one of the adjuvants alone. An **antigen** is covalently bonded to a glycolipid analog to provide a discrete molecule which exhibits an enhanced adjuvanting effect on the **antigen** which is greater than the adjuvanting effect attainable in the absence of such covalent bonding.

L19 ANSWER 11 OF 13 USPATFULL

AN 97:51847 USPATFULL

TI Method for determining TNF

IN Kriegler, Michael, San Francisco, CA, United States  
Nitecki, Danute E., Berkeley, CA, United States

PA Cetus Oncology Corporation, Emeryville, CA, United States (U.S. corporation)

PI US 5639593 19970617

AI US 1996-649197 19960517 (8)

RLI Continuation of Ser. No. US 1995-385434, filed on 8 Feb 1995, now patented, Pat. No. US 5545518 which is a continuation of Ser. No. US 1993-53558, filed on 26 Apr 1993, now patented, Pat. No. US 5422425 which is a continuation of Ser. No. US 1990-562720, filed on 6 Aug 1990, now abandoned

DT Utility

FS Granted

EXNAM Primary Examiner: Fleisher, Mindy; Assistant Examiner: Degen, Nancy J.

LREP Pochopien, Donald J., Savereide, Paul B., Blackburn, Robert P.

CLMN Number of Claims: 5  
ECL Exemplary Claim: 1  
DRWN 4 Drawing Figure(s); 3 Drawing Page(s)  
LN.CNT 856

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compositions and methods are described for identifying inhibitors of mature protein hormone formation from a prohormone, and prophylactic and therapeutic uses of the inhibitors for treating diseases associated with elevated levels of the mature hormones, particularly sepsis, AIDS and autoimmune diseases.

L19 ANSWER 12 OF 13 USPATFULL

AN 96:72766 USPATFULL

TI Assay for determining TNF or IL-1 convertase activity

IN Kriegler, Michael, San Francisco, CA, United States

Nitecki, Danute E., Berkeley, CA, United States

PA Cetus Oncology Corporation, Emeryville, CA, United States (U.S. corporation)

PI US 5545518 19960813

AI US 1995-385434 19950208 (8)

RLI Division of Ser. No. US 1993-53558, filed on 26 Apr 1993, now patented, Pat. No. US 5422425 which is a continuation of Ser. No. US 1990-562720, filed on 6 Aug 1990, now abandoned

DT Utility

FS Granted

EXNAM Primary-Examiner: Fleisher, Mindy; Assistant Examiner: Degen, Nancy J.

LREP Pochopien, Donald J., Savereide, Paul B., Blackburn, Robert P.

CLMN Number of Claims: 12

ECL Exemplary Claim: 1

DRWN 5 Drawing Figure(s); 3 Drawing Page(s)

LN.CNT 824

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compositions and methods are described for identifying inhibitors of mature protein hormone formation from a prohormone, and prophylactic and therapeutic uses of the inhibitors for treating diseases associated with elevated levels of the mature hormones, particularly sepsis, and autoimmune diseases.

L19 ANSWER 13 OF 13 USPATFULL

AN 95:50249 USPATFULL

TI Methods for the identification of cytokine convertase inhibitors

IN Kriegler, Michael, San Francisco, CA, United States

Nitecki, Danute E., Berkeley, CA, United States

PA Cetus Oncology Corporation, Emeryville, CA, United States (U.S. corporation)

PI US 5422425 19950606

AI US 1993-53558 19930426 (8)

RLI Continuation of Ser. No. US 1990-562720, filed on 6 Aug 1990, now abandoned

DT Utility

FS Granted

EXNAM Primary Examiner: Russel, Jeffrey E.

LREP Pochopien, Donald J., Savereide, Paul B., Blackburn, Robert P.

CLMN Number of Claims: 2

ECL Exemplary Claim: 1

DRWN 5 Drawing Figure(s); 3 Drawing Page(s)

LN.CNT 696

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compositions and methods are described for identifying inhibitors of mature protein hormone formation from a prohormone, and prophylactic and therapeutic uses of the inhibitors for treating diseases associated with elevated levels of the mature hormones, particularly sepsis, and autoimmune diseases.

=> d his

(FILE 'HOME' ENTERED AT 14:46:23 ON 15 APR 2002)

FILE 'BIOSIS, MEDLINE, AGRICOLA, EMBASE, CABA, WPIDS, JAPIO, BIOTECHDS, LIFESCI, CAPLUS, USPATFULL, USPAT2' ENTERED AT 14:50:42 ON 15 APR 2002

E PORRO MASSIMO/AU

L1 41 S E3  
E PORRO M/AU  
L2 116 S E3-E4  
L3 157 S L1-L2  
L4 26 S L3 AND BACTERI? (10A) VACCIN?  
L5 8 S L4 AND LPS  
L6 6 DUP REM L5 (2 DUPLICATES REMOVED)  
L7 34 S L3 AND LPS  
L8 25 S L7 AND (VACCIN? OR ANTIGEN?)  
L9 18 S L8 AND GRAM-NEGATIVE  
L10 10 DUP REM L9 (8 DUPLICATES REMOVED)  
L11 27290 S LPS AND (VACCIN? OR ANTIGEN?)  
L12 3242 S L11 AND ENDOTOXIN  
L13 20 S L12 AND EXCESS (5A) PEPTID?  
L14 19 DUP REM L13 (1 DUPLICATE REMOVED)  
L15 57 S L11 AND EXCESS (5A) PEPTID?  
L16 19 DUP REM L14 (0 DUPLICATES REMOVED)  
L17 54 DUP REM L15 (3 DUPLICATES REMOVED)  
L18 50 S L17 AND (COMBIN? OR MULTICOMPONENT)  
L19 13 S L18 AND GRAM (5A) NEGATIVE

=> s l18 and stoichiometric

L20 3 L18 AND STOICHIOMETRIC

=> d bib ab 1-3

L20 ANSWER 1 OF 3 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD

AN 2000-128304 [12] WPIDS

DNC C2000-039402

TI New **vaccine** for prevention of gram-negative bacterial infections and endotoxin related disorders, comprises complex of peptide and **LPS**.

DC B04 B05 D16

IN PORRO, M

PA (BIOS-N) BIOSYNTH SRL

CYC 26

PI EP 976402 A2 20000202 (200012)\* EN 43p

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
RO SE SI

CA 2279316 A1 20000129 (200028) EN

ADT EP 976402 A2 EP 1999-202476 19990727; CA 2279316 A1 CA 1999-2279316  
19990729

PRAI US 1998-124280 19980729

AB EP 976402 A UPAB: 20000308

NOVELTY - A **vaccine** for preventing gram negative infections and the effects of endotoxins is new and comprises a complex obtained by **combining LPS** free or in conjugate form with a sufficient amount of a peptide which is capable of producing a non-toxic, highly immunogenic complex.

DETAILED DESCRIPTION - A **vaccine** for preventing gram negative infections and the effects of endotoxins is new and comprises a complex obtained by **combining LPS** free or in conjugate form with a sufficient amount of a peptide which is capable of producing a non-toxic, highly immunogenic complex. The peptide is of the formula (a) -  
(c):

(a) (A)n;

(b) (AB)<sub>m</sub>; and/or

(c) (ABC)<sub>p</sub>.

A = a cationic amino acid e.g. Lysine or Arginine;

B = a hydrophobic amino acid e.g. Valine, Leucine, Isoleucine, Tyrosine, Phenylalanine and Tryptophan;

C = a hydrophobic amino acid e.g. Valine, Leucine, Isoleucine, Tyrosine, Phenylalanine and Tryptophan;

n = integer of 7-16;

m = integer of 4-20;

p = integer of 4-20.

An INDEPENDENT CLAIM is also included for a method for the preparation of a **vaccine** for prevention of gram-negative infections and the effects of endotoxins.

ACTIVITY - Antibacterial.

No relevant activity data given.

MECHANISM OF ACTION - The **excess peptide** significantly stabilizes the **LPS peptide** complex from the likely antagonistic activity of natural **LPS**-receptor proteins present on specialized cells of the immune system.

USE - The **vaccine** is useful for the prevention of bacterial infections caused by gram-negative bacteria and for the prevention of biological effects of homologous endotoxins, especially for preventing sepsis and septic shock.

ADVANTAGE - The toxic characteristic of **LPS** may be removed without eliminating the **antigenic** and immunogenic properties of **LPS** by binding the **LPS** (via the lipid A moiety) to a peptide.

Dwg.0/0

L20 ANSWER 2 OF 3 USPATFULL

AN 2002:60686 USPATFULL

TI **VACCINE** FOR PREVENTION OF GRAM-NEGATIVE BACTERIAL INFECTIONS AND ENDOTOXIN RELATED DISEASES

IN PORRO, MASSIMO, SIENA, ITALY

PI US 2002034520 A1 20020321

AI US 1998-124280 A1 19980729 (9)

DT Utility

FS APPLICATION

LREP JAMES V COSTIGAN, HEDMAN GIBSON & COSTIGAN, 1185 AVENUE OF THE AMERICAS, NEW YORK, NY, 100362601

CLMN Number of Claims: 53

ECL Exemplary Claim: 1

DRWN 10 Drawing Page(s)

LN.CNT 1029

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A **vaccine** is disclosed which is useful for protecting a host from Gram negative infections and the effects of endotoxin, therefore preventing sepsis and septic shock. The **vaccine** is prepared by **combining LPS** free or in conjugate form with a **stoichiometric excess** of a **peptide** of the formula:

(a) (A)<sub>sub.n</sub> wherein A is Lysine or Arginine and n is an integer with a minimum value of 7;

(b) (AB)<sub>sub.m</sub> wherein A is Lysine or Arginine and B is a hydrophobic amino acid selected from the group consisting of Valine, Leucine, Isoleucine, Tyrosine, Phenylalanine and Tryptophan; m is an integer with a minimum value of 3; and

(c) (ABC)<sub>sub.p</sub> wherein A is a cationic amino acid which is Lysine or Arginine; B and C are hydrophobic amino acids which may be the same or different and are selected from the group consisting of Valine, Leucine, Isoleucine, Tyrosine, Phenylalanine and Tryptophan; p is an integer with

a minimum value of 2.

L20 ANSWER 3 OF 3 USPATFULL  
AN 2002:13790 USPATFULL  
TI Superantigen based methods and compositions for treatment of diseases  
IN Terman, David Stephen, 3183 Palmero Way, Pebble Beach, CA, United States  
93953  
PI US 6340461 B1 20020122  
AI US 1997-992877 19971217 (8)  
PRAI US 1996-33172P 19961217 (60)  
US 1997-44074P 19970417 (60)  
DT Utility  
FS GRANTED  
EXNAM Primary Examiner: Bansal, Geetha P.  
LREP Venable, Livnat, Shmuel  
CLMN Number of Claims: 7  
ECL Exemplary Claim: 1,6  
DRWN 8 Drawing Figure(s); 8 Drawing Page(s)  
LN.CNT 5893  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to therapeutic methods and compositions employing superantigens. Methods and compositions employing superantigens and immunotherapeutic proteins in **combination** with one another have been found to provide more effective treatment than either component used alone. Superantigens, in conjunction with one or more additional immunotherapeutic **antigens**, may be used to either induce a therapeutic immune response directed against a target or to inhibit a disease causing immune response. Specific **combinations** of superantigens and immunotherapeutic **antigens** are used to treat specific diseases. The induction (or augmentation) of a desired immune against a target may be used, for example, to kill cancer cells or kill the cells or an infectious agent. The inhibition of an immune response, e.g., through the induction of T cell anergy, may be used to reduce the symptoms of an autoimmune disease. Diseases that may be treated by the methods and compositions of the invention include neoplastic diseases, infectious diseases, and autoimmune diseases. One aspect of the invention is to provide methods for the treatment of diseases comprising the steps of administering an effective amount of a superantigen and an immunotherapeutic so as to have the desired therapeutic effect. The superantigen and immunotherapeutic **antigen** may be administered together as a mixture. Alternatively, the superantigen and immunotherapeutic **antigen** may be administered separately. In one embodiment of the invention, the superantigen and immunotherapeutic **antigen** are administered to the patient in the form of a immunotherapeutic **antigen**-superantigen polymer of the invention. Another aspect of the invention is to provide methods for the treatment of diseases comprising the steps of incubating a lymphocyte population ex vivo a superantigen and an immunotherapeutic protein so as to either activate or anergize T cells within the selected population.

=> d clm 3

L20 ANSWER 3 OF 3 USPATFULL  
CLM What is claimed is:  
1. A pharmaceutical compound comprising a therapeutic **antigen** and superantigen, wherein said super **antigen** is conjugated to the therapeutic **antigen** and wherein the therapeutic **antigen** does not comprise an **antigen** binding region of an antibody.  
  
2. A pharmaceutical compound according to claim 1, wherein the therapeutic **antigen** is a tumor specific **antigen**.

3. A pharmaceutical compound according to claim 2, wherein the tumor specific **antigen** is selected from the group consisting of MAGE-1, MAGE-3, MART-1, and tyrosinase.

4. A pharmaceutical compound according to claim 1, wherein the therapeutic **antigen** is chemically conjugated to the therapeutic **antigen**.

5. A pharmaceutical compound according to claim 1, wherein the therapeutic **antigen** is chemically conjugated to the therapeutic **antigen** as a fusion protein.

6. A method of making an immunotherapeutic polymer, said method comprising the steps of mixing a plurality of first subunits with a plurality of second subunits, wherein the first subunits are superantigens and the second subunits are immunotherapeutic **antigens** that are tumor specific **antigens**, crosslinking the first and second subunits in random **combination**.

7. An immunotherapeutic polymer made by the process of claim 6.

Day : Monday  
Date: 4/15/2002  
Time: 15:11:21

 **PALM INTRANET**

## Inventor Name Search Result

Your Search was:

Last Name = PORRO

First Name = MASSIMO

Application#	Patent#	Status	Date Filed	Title	Inventor Name
<u>06881091</u>	<u>4711779</u>	150	07/02/1986	GLYCOPROTEINIC CONJUGATES HAVING TRIVALENT IMMUNOGENIC ACTIVITY	PORRO , MASSIMO
<u>07590649</u>	<u>5153312</u>	150	09/28/1990	OLIGOSACCHARIDE CONJUGATE VACCINES	PORRO , MASSIMO
<u>07658744</u>	Not Issued	166	02/11/1991	SYNTHETIC PEPTIDES FOR DETOXIFICATION OF BACTERIAL ENDOTOXINS AND FOR THE PREVENTION AND TREATMENT OF SEPTIC SHOCK	PORRO , MASSIMO
<u>07819893</u>	<u>5371186</u>	150	01/16/1992	"SYNTHETIC PEPTIDES FOR DETOXIFICATION OF BACTERIAL ENDOTOXINS AND FOR THE PREVENTION AND TREATMENT OF SEPTIC SHOCK"	PORRO , MASSIMO
<u>07879403</u>	Not Issued	161	05/07/1992	SYNTHETIC LIPID A GLYCOCONJUGATE ANTIGENS FOR USE IN VACCINES	PORRO , MASSIMO
<u>07921678</u>	<u>5306492</u>	150	07/30/1992	OLIGOSACCHARIDE CONJUGATE VACCINES	PORRO , MASSIMO
<u>08049871</u>	<u>5358933</u>	150	04/19/1993	SYNTHETIC PEPTIDES FOR DETOXIFICATION OF BACTERIAL ENDOTOXINS AND FOR THE PREVENTION AND TREATMENT OF SEPTIC SHOCK	PORRO , MASSIMO
<u>08097830</u>	<u>5652211</u>	150	07/26/1993	PEPTIDES FOR NEUTRALIZING THE TOXICITY OF LIPID A	PORRO , MASSIMO

<u>08259996</u>	Not Issued	161	06/15/1994	SYNTHETIC PEPTIDES FOR DETOXIFICATION OF BACTERIAL ENDOTOXINS AND FOR THE PREVENTION AND TREATMENT OF SEPTIC SHOCK	PORRO , MASSIMO
<u>08280397</u>	<u>5589459</u>	150	07/26/1994	SYNTHETIC PEPTIDES FOR DETOXIFICATION OF BACTERIAL ENDOTOXINS AND FOR THE PREVENTION AND TREATMENT OF SEPTIC SHOCK	PORRO , MASSIMO
<u>08456112</u>	<u>5834430</u>	150	05/31/1995	POTENTIATION OF ANTIBIOTICS	PORRO , MASSIMO
<u>08967518</u>	Not Issued	161	11/11/1997	COMBINED USE OF ANTI-ENDOTOXIN SYNTHETIC PEPTIDES AND OF ANTI-ENDOTOXIN ANTIBODIES FOR THE PROPHYLAXIS AND TREATMENT OF ENDOTOXICOSIS NDSEPTIC SHOCK.	PORRO , MASSIMO
<u>09124280</u>	Not Issued	071	07/29/1998	VACCINE FOR PREVENTION OF GRAM-NEGATIVE BACTERIAL INFECTIONS AND ENDOTOXIN RELATED DISEASES	PORRO , MASSIMO

Inventor Search Completed: Search Completed: No Records to Display.

	<b>Last Name</b>	<b>First Name</b>
<b>Search Another:</b>	<input type="text" value="PORRO"/>	<input type="text" value="MASSIMO"/>
<b>Inventor</b>	<input type="button" value="Search"/>	

(To go back use Back button on your browser toolbar.)

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